Author(s)	Title	Year of Publication	DOI	Reason for Exclusion
Zhao, Shirley	Erector Spinae Plane Block for Mastectomies.	2020	Not available	Full Text Not Available
King, Caroline A.; Perez-Alvarez, Idanis M.; Bartholomew, Alex J.; Bozzuto, Laura; Griffith, Kayla; Sosin, Michael; Thibodeau, Renee; Gopwani, Sumeet; Myers, Joseph; Fan, Kenneth L.; Tousimis, Eleni A.	Opioid-free anesthesia for patients undergoing mastectomy: A matched comparison.	2020	10.1111/tbj.13999	Wrong route of administration
Ergun, Meliha Orhon; Zengin, Seniyye Ulgen; Mustafayeva, Aynur; Ugurlu, Mustafa Umit; Umuroglu, Tumay	Analgesic efficacy and opioid sparing effect of erector spinae plane block in oncologic breast surgery: An observational study.	2022	10.28982/josam.1059411	Wrong outcome studied
Abu Elyazed, Mohamed M.; Mostafa, Shaimaa F.	Continuous Pectoral Nerve Block Compared With Continuous Thoracic Paravertebral Block and Intravenous Opioid Analgesia for the Postoperative Analgesic Efficacy in Patients Undergoing Modified Radical Mastectomy: A Prospective Randomized Trial.	2021	10.1097/AJP.0000000000000932	Wrong intervention
Stein, Michael J.; Waltho, Dan; Ramsey, Tim; Wong, Patrick; Arnaout, Angel; Zhang, Jing	Paravertebral blocks in immediate breast reconstruction following mastectomy.	2019	10.1111/tbj.13295	Before 2021
Sulak, Muhammet M.; Ahiskalioglu, Ali; Yayik, Ahmet M.; Karadeniz, Erdem; Celik, Mine;	The effect of ultrasound-guided serratus plane block on the quality of life in	2022	10.5114/ait.2022.114203	Wrong outcome studied

Demir, Ufuk; Ari, Muhammet A.; Alici, Haci A.	patients undergoing modified radical mastectomy and axillary lymph node dissection: a randomized controlled study.			
Boughey JC; Goravanchi F; Parris RN; Kee SS; Frenzel JC; Hunt KK; Ames FC; Kuerer HM; Lucci A	Improved postoperative pain control using thoracic paravertebral block for breast operations.	2009	10.1111/j.1524-4741.2009.00763.x	Before 2021
Zinboonyahgoon, Nantthasorn; Vlassakov, Kamen; Lirk, Philipp; Spivey, Tara; King, Tari; Dominici, Laura; Golshan, Mehra; Strichartz, Gary; Edwards, Robert; Schreiber, Kristin	Benefit of regional anaesthesia on postoperative pain following mastectomy: the influence of catastrophising.	2019	10.1016/j.bja.2019.01.041	Before 2021
Su, Yan-hong; Luo, De-cai; Pang, Yong	Effects of intraoperative Magnesium sulfate infusion on emergency agitation during general anesthesia in patients undergoing radical mastectomy: a randomized controlled study.	2023	10.1186/s12871-023-02288-6	Wrong outcome studied
Khorasanizadeh, Shayesteh; Arabzadeh, Behnam; Teymourian, Houman; Mohseni, Gholam Reza	Pectoral Nerve Block and Erector Spinae Plane Block and Post-Breast Surgery Complications.	2020	10.5812/ijcm.100893	Before 2021
Cros, Jérôme; Sengès, Patrick; Kaprelian, Suzan; Desroches, Julie; Gagnon, Caroline; Labrunie, Anaïs; Marin, Benoît; Crépin, Sabrina; Nathan, Nathalie; Beaulieu, Pierre	Pectoral I Block Does Not Improve Postoperative Analgesia After Breast Cancer Surgery: A Randomized, Double-Blind, Dual-Centered Controlled Trial.	2018	10.1097/AAP.0000000000000779	Before 2021

Altıparmak, Başak; Toker, Melike Korkmaz; Uysal, Ali Ihsan; Dere, Özcan; Uğur, Bakiye; Korkmaz Toker, Melike	Evaluation of ultrasound-guided rhomboid intercostal nerve block for postoperative analgesia in breast cancer surgery: a prospective, randomized controlled trial.	2020	10.1136/rapm-2019-101114	Before 2021
Xiao, Ying-Kun; She, Shou-Zhang; Xu, Li-Xin; Zheng, Bin	Serratus Anterior Plane Block Combined with General Analgesia and Patient-Controlled Serratus Anterior Plane Block in Patients with Breast Cancer: A Randomized Control Trial.	2021	10.1007/s12325-021-01782-y	Wrong intervention
Swisher, Matthew W.; Wallace, Anne M.; Sztain, Jacklynn F.; Said, Engy T.; Khatibi, Bahareh; Abanobi, Maryann; Finneran IV, John J.; Gabriel, Rodney A.; Abramson, Wendy; Blair, Sarah L.; Hosseini, Ava; Dobke, Marek K.; Donohue, Michael C.; Ilfeld, Brian M.	Erector spinae plane versus paravertebral nerve blocks for postoperative analgesia after breast surgery: a randomized clinical trial.	2020	10.1136/rapm-2019-101013	Before 2021
Yilmaz, Fulya; Bas, Koray; Zengel, Baha	Comparative study of postoperative analgesia and opioid requirement using pectoral nerve blocks with general analgesia.	2021	10.1007/s12262-021-02732-2	Wrong intervention
Haiyun Du; Xiang Liu; Feng Li; Zhouya Xue; Yuhai Li; Bin Qian; Du, Haiyun; Liu, Xiang; Li, Feng; Xue, Zhouya; Li, Yuhai; Qian, Bin	Anesthetic effect of ultrasound-guided multiple-nerve blockade in modified radical mastectomy in patients with breast cancer.	2021	10.1097/MD.0000000000024786	Wrong intervention
Kulhari, S.; Bharti, N.; Bala, I.; Arora, S.; Singh, G.	Efficacy of pectoral nerve block versus thoracic paravertebral	2016	10.1093/bja/aew223	Before 2021

	block for postoperative analgesia after radical mastectomy: a randomized controlled trial.			
Abu Elyazed, Mohamed M; Abdelghany, Mohamed S; Mostafa, Shaimaa F	The Analgesic Efficacy of Pecto-Intercostal Fascial Block Combined with Pectoral Nerve Block in Modified Radical Mastectomy: A Prospective Randomized Trial.	2020	10.36076/ppj.2020.23.485	Before 2021
Wang, Wei; Song, Wenqin; Yang, Congying; Sun, Qian; Chen, Hui; Zhang, Lei; Bu, Xueshan; Zhan, Liying; Xia, Zhongyuan	Ultrasound-Guided Pectoral Nerve Block I and Serratus-Intercostal Plane Block Alleviate Postoperative Pain in Patients Undergoing Modified Radical Mastectomy.	2019	10.36076/ppj/2019.22.e315	Before 2021
Nguyen, Brittany N; Barta, Ruth J; Stewart, Christine E; Wheelwright, Matthew; Heinrich, Cherrie A	Ketorolac for Patients Undergoing Implant-Based Breast Reconstruction: Impact on Hospital Length of Stay and Postoperative Narcotic Use.	2020	10.1093/asj/sjz179	Wrong outcome studied
Bakr, Mohamed A.; Mohamed, Sahar A.; Mohamad, Mohamad F.; Mohamed, Montaser A.; El Sherif, Fatma A.; Mosad, Eman; Abdel-Hamed, Mohammed F.	Effect of Dexmedetomidine Added to Modified Pectoral Block on Postoperative Pain and Stress Response in Patient Undergoing Modified Radical Mastectomy.	2018	Not available	Before 2021
Jeong-Min Hong; Yun-Hee Han; Dowon Lee; Boo Young Hwang; Jiseok Baik; Ah Reum Cho; Hyeon Jeong Lee; Eunsoo Kim; Hong, Jeong-Min; Han, Yun-Hee; Lee,	Comparison of efficacy between palonosetron-midazolam combination and palonosetron alone for prevention of postoperative nausea and vomiting in patients	2021	10.1097/MD.0000000000026438	Wrong intervention

Dowon; Hwang, Boo Young; Baik, Jiseok; Cho, Ah Reum; Lee, Hyeon Jeong; Kim, Eunsoo	undergoing breast surgery and patient controlled analgesia: A prospective, randomized, double-blind st			
Gürkan, Yavuz; Aksu, Can; Kuş, Alparslan; Yörükoğlu, Ufuk H.; Kılıç, Cennet T.; Yörükoğlu, Ufuk H; Kılıç, Cennet T	Ultrasound guided erector spinae plane block reduces postoperative opioid consumption following breast surgery: A randomized controlled study.	2018	10.1016/j.jclinane.2018.06.033	Before 2021
Goswami, S.; Kundra, P.; Bhattacharyya, J.	Pectoral nerve block1 versus modified pectoral nerve block2 for postoperative pain relief in patients undergoing modified radical mastectomy: a randomized clinical trial.	2017	10.1093/bja/aex201	Before 2021
Marochkov, Alexey; Yaskevich, Valery	Multi-injection paravertebral block with low volume local anesthetic for anesthesia in radical mastectomy - randomized controlled trial.	2021	10.5114/ait.2021.105649	Wrong outcome studied
Altıparmak, Başak; Korkmaz Toker, Melike; Uysal, Ali İhsan; Turan, Mustafa; Gümüş Demirbilek, Semra	Comparison of the effects of modified pectoral nerve block and erector spinae plane block on postoperative opioid consumption and pain scores of patients after radical mastectomy surgery: A prospective, randomized, controlled trial.	2019	10.1016/j.jclinane.2018.10.040	Before 2021
Al Ja'bari, A.; Robertson, M.; El-Boghdadly, K.;	A randomised controlled trial of the pectoral nerves-2	2019	10.1111/anae.14769	Before 2021

Albrecht, E.; El-Boghdadly, K	(PECS-2) block for radical mastectomy.			
Yusheng Yao; Hao Li; Qiaolan He; Tingting Chen; Yihang Wang; Xiaochun Zheng; Yao, Yusheng; Li, Hao; He, Qiaolan; Chen, Tingting; Wang, Yihang; Zheng, Xiaochun	Efficacy of ultrasound-guided erector spinae plane block on postoperative quality of recovery and analgesia after modified radical mastectomy: randomized controlled trial.	2020	10.1136/rapm-2019-100983	Before 2021
Gürkan, Yavuz; Aksu, Can; Kuş, Alparslan; Yörükoğlu, Ufuk H.	Erector spinae plane block and thoracic paravertebral block for breast surgery compared to IV-morphine: A randomized controlled trial.	2020	10.1016/j.jclinane.2019.06.036	Before 2021
M, Neethu; Pandey, Ravinder Kumar; Sharma, Ankur; Darlong, Vanlalnghaka; Punj, Jyotsna; Sinha, Renu; Singh, Preet Mohinder; Hamshi, Nandini; Garg, Rakesh; Chandralekha, Chandralekha; Srivastava, Anurag	Pectoral nerve blocks to improve analgesia after breast cancer surgery: A prospective, randomized and controlled trial.	2018	10.1016/j.jclinane.2017.11.027	Wrong outcome studied
Kaiyuan Wang; Xiaobei Zhang; Tingting Zhang; Hui Yue; Shan Sun; Hongwei Zhao; Peng Zhou; Wang, Kaiyuan; Zhang, Xiaobei; Zhang, Tingting; Yue, Hui; Sun, Shan; Zhao, Hongwei; Zhou, Peng	The Efficacy of Ultrasound-guided Type II Pectoral Nerve Blocks in Perioperative Pain Management for Immediate Reconstruction After Modified Radical Mastectomy: A Prospective, Randomized Study.	2018	10.1097/AJP.0000000000000529	Before 2021
Mazzinari, Guido; Rovira, Lucas; Casasempere, Alma; Ortega, Juan; Cort,	Interfascial block at the serratus muscle plane versus conventional analgesia in breast	2019	10.1136/rapm-2018-000004	Before 2021

Luis; Esparza-Miñana, José-Miguel; Belaouchi, Moncef	surgery: a randomized controlled trial.			
Kim, Susan Y; Avila, Jorge; Lee, Joshua; Lee, Tim; Macres, Stephen; Applegate, Richard L; Wilson, Machelle D; Zhou, Jon	Impact of preoperative pectoralis plane nerve blocks for mastectomy on perioperative opioid consumption: a retrospective study.	2020	10.2217/pmt-2019-0054	Wrong outcome studied
Othman, Ahmed H.; El-Rahman, Ahmad M. Abd; Sherif, Fatma Adel El; El Sherif, Fatma	Efficacy and Safety of Ketamine Added to Local Anesthetic in Modified Pectoral Block for Management of Postoperative Pain in Patients Undergoing Modified Radical Mastectomy.	2016	Not available	Before 2021
Kasimahanti, Rajesh; Arora, Suman; Bhatia, Nidhi; Singh, Gurpreet	Ultrasound-guided single- vs double-level thoracic paravertebral block for postoperative analgesia in total mastectomy with axillary clearance.	2016	10.1016/j.jclinane.2016.01.027	Before 2021
Hards, Marcus; Harada, Arisa; Neville, Isobel; Harwell, Sheelagh; Babar, Mahwash; Ravalia, Abdulsatar; Davies, Giles	The effect of serratus plane block performed under direct vision on postoperative pain in breast surgery.	2016	10.1016/j.jclinane.2016.05.029	Before 2021
Bashandy, Ghada Mohammad Nabih; Abbas, Dina Nabil	Pectoral nerves I and II blocks in multimodal analgesia for breast cancer surgery: a randomized clinical trial.	2015	10.1097/AAP.0000000000000163	Before 2021
Versyck, Barbara; Van Geffen, Geert-Jan; Van Houwe, Patrick	Prospective double blind randomized placebo-controlled clinical trial of the pectoral nerves (Pecs) block type II.	2017	10.1016/j.jclinane.2017.03.054	Before 2021

Hetta, Diab Fuad; Rezk, Khalid Mohammed	Pectoralis-serratus interfascial plane block vs thoracic paravertebral block for unilateral radical mastectomy with axillary evacuation.	2016	10.1016/j.jclinane.2016.04.003	Before 2021
Hetta, Diab Fuad; Mohamed, Montaser A.; Mohammad, Mohammad Farouk	Analgesic efficacy of pregabalin in acute postmastectomy pain: placebo controlled dose ranging study.	2016	10.1016/j.jclinane.2016.05.007	Wrong route of administration
Agarwal, Rishi R; Wallace, Anne M; Madison, Sarah J; Morgan, Anya C; Mascha, Edward J; Ilfeld, Brian M	Single-injection thoracic paravertebral block and postoperative analgesia after mastectomy: a retrospective cohort study.	2015	10.1016/j.jclinane.2015.04.003	Before 2021
Altıparmak, Başak; Korkmaz Toker, Melike; Uysal, Ali İhsan; Gümüş Demirbilek, Semra	Comparison of the efficacy of erector spinae plane block performed with different concentrations of bupivacaine on postoperative analgesia after mastectomy surgery: ramdomized, prospective, double blinded trial.	2019	10.1186/s12871-019-0700-3	Before 2021
[Unknown authors]	Regional block safer for mastectomy, reconstruction: regional offers lasting pain control, cuts PONV.	2008	Not available	Before 2021
[Unknown authors]	Erector Spina Plane Block Versus Deep Serratus Anterior Plane Block for Post Mastectomy Analgesia	2019	Not available	Before 2021
[Unknown authors]	Efficacy of Adding Magnesium Sulfate to Combined Pecto-Intercostal & Serratus Anterior Planes Block on Post-operative	2026	Not available	Full Text Not Available

	Analgesia in Patients Undergoing Modified Radical Mastectomy: A Prospective, Randomized Controlled Clinical Trial			
[Unknown authors]	Analgesic Effect of Intraoperative Esmolol in Mastectomies: Single Center, Prospective, Double-blind, Randomized and Placebo Controlled Study	2015	Not available	Before 2021
[Unknown authors]	Serratus Anterior Plane Block: Sub-Serratus vs Supra-Serratus Plane Block for Pain Control in Patients Undergoing Mastectomy	2017	Not available	Before 2021
[Unknown authors]	Pre-operative Paravertebral Blocks to Decrease Post-operative Pain Following Mastectomy With Immediate Tissue Expander Reconstruction	2014	Not available	Before 2021
[Unknown authors]	Comparative Study Between Combined Modified Pectoral Nerve Block (PECSII) and Transversus Thoracic Plane Block Versus Erector Spinae Plane Block for Post-operative Analgesia Following Breast Surgeries, (randomized Clinical Trial Study)	2025	Not available	Full Text Not Available
[Unknown authors]	Analgesia Efficacy of Pre-operative and Post-operative PEC I/II Block for Bilateral	2018	Not available	Before 2021

	Mastectomy With Reconstruction			
[Unknown authors]	A Comparison of the Paravertebral Block Versus Pectoralis Block in Controlling Bilateral Post-mastectomy Pain in Setting of Tissue Expander Placement	2018	Not available	Full Text Not Available
[Unknown authors]	Post-mastectomy Recovery: A Randomized Clinical Trial Comparing Preoperative PECS-II Blocks With Intraoperative Pectoral Blocks	2024	Not available	Full Text Not Available
[Unknown authors]	Study of the Effects of Rhomboid Intercostal Block on Acute Postoperative Pain Management and Chronic Pain Incidence in Patients Undergoing Oncologic Breast Surgery	2024	Not available	Wrong study design
[Unknown authors]	The Effect of Pectoral Nerve Block as a Part of Enhanced Recovery After Mastectomy	2022	Not available	Wrong intervention
[Unknown authors]	Liposomal Bupivacaine Vs Bupivacaine with Dexmedetomidine in an Erector Spinae Plane Block for Mastectomies in Cancer Patients: a Randomized Control Trial	2024	Not available	Full Text Not Available
[Unknown authors]	Evaluation of the Efficacy of Perioperative Administration of Tianeptine Versus Pregabalin on Acute and Chronic Post Mastectomy Pain After	2023	Not available	Full Text Not Available

	Breast Cancer Surgery. A Double-Blinded Randomized Controlled Trial.			
[Unknown authors]	Pectoral Nerves I, II and Serratus Plane Blocks in Multimodal Analgesia for Mastectomies A Randomized Clinical Trial	2019	Not available	Before 2021
[Unknown authors]	Acute & Chronic Post-mastectomy Pain: Can PECS Block Alter the Geography?	2020	Not available	Full Text Not Available
[Unknown authors]	Preoperative Regional Nerve Block to Decrease Acute and Chronic Post-Operative Pain and Narcotic Use Following Mastectomy	2019	Not available	Full Text Not Available
[Unknown authors]	Pectoral Nerve Block vs. Standard Anesthesia in Patients Undergoing Mastectomy and Immediate Breast Reconstruction: Impact on Post-operative Pain and Nausea/Vomiting	2016	Not available	Full Text Not Available
[Unknown authors]	Large-scale Prospective Double-blind Randomized Controlled Trial of Pecs II Block for Breast Surgery: Effect on Postoperative Pain and Opioid Consumption	2015	Not available	Before 2021
[Unknown authors]	Comparison Between Pectoral Nerve Block II and Local Anesthesia Infiltration of Isobaric Bupivacaine 0.25% 50 MG on Neutrophil-Lymphocyte	2024	Not available	Full Text Not Available

	Ratio, Interleukin-6 Levels, Pain Intensity, and Post-surgical Opioid Requirements in Modified Radical Mastectomy Pat			
[Unknown authors]	A Retrospective Evaluation of Systemic Analgesia, Rhomboid Intercostal Block, and Combined Rhomboid Intercostal Block With Deep Parasternal Intercostal Plane Block After Mastectomy	2026	Not available	Full Text Not Available
[Unknown authors]	Comparison Between Paravertebral Block and Usual Analgesia in Patients Undergoing Unilateral Total Mastectomy With Immediate Reconstruction	2024	Not available	Full Text Not Available
[Unknown authors]	The Effect of Erector Spina Plane Block on Postoperative Pain and Opiod Consumption After Mastectomy	2021	Not available	Wrong outcome studied
[Unknown authors]	Pectoralis and Serratus Nerve Blocks for Mastectomy: a Prospective, Randomized, Single-blind, Controlled Trial	2019	Not available	Before 2021
[Unknown authors]	Prevention of Post-Mastectomy Pain With Perioperative Ketamine Administration: A Randomized, Placebo-controlled Trial	2017	Not available	Before 2021

[Unknown authors]	The Effect of Serratus Anterior Plane Block Timing on Postoperative Quality of Recovery, Postoperative Pain, and Inflammatory Response in Elective Unilateral Mastectomy Surgery: A Prospective Randomized Controlled Clinical Trial	2026	Not available	Full Text Not Available
[Unknown authors]	Use of PECS Block in Partial Mastectomy for Postoperative Pain Control and Mitigation of Narcotic Use- A Randomized Control Trial	2019	Not available	Full Text Not Available
[Unknown authors]	Efficacy of Dexmedetomidine on Postoperative Analgesia After Radical Mastectomy: Randomized Controlled Trial	2021	Not available	Full Text Not Available
[Unknown authors]	Duloxetine for Acute Post-mastectomy Pain: Placebo Controlled Dose Ranging Study	2018	Not available	Wrong intervention
[Unknown authors]	Efficacy of Ultrasound Guided Pectoral Nerve Block Versus Ultrasound Guided Mid-point Transverse Process Block for Postoperative Analgesia in Patients Undergoing Modified Radical Mastectomy	2025	Not available	Full Text Not Available
[Unknown authors]	Ultrasound-guided Thoracic Paravertebral Block Versus Ultrasound-guided Thoracic Erector Spinae Plane Block for	2018	Not available	Before 2021

	Pain Management After Unilateral Total Mastectomy: a Randomized Controlled Trial			
[Unknown authors]	Effect of Intravenous Infusion of Lidocaine, Magnesium Sulphate and Remifentanil Perioperatively in Patients Undergoing Mastectomy: a Prospective, Randomized and Double-blind Study	2014	Not available	Before 2021
[Unknown authors]	Analgesic Efficacy of Magnesium Sulphate as an Adjuvant to Levo-bupivacine in Ultrasound Guided Erector Spinae Plan Block for Modified Radical Mastectomy	2021	Not available	Full Text Not Available
[Unknown authors]	Randomized, Single-blind, Placebo-controlled Study on the Effect of Postoperative Administration of Single Dose Ketamine After Mastectomy on Pain	2021	Not available	Wrong intervention
[Unknown authors]	Ultrasound-guided Bi-level Erector Spinae Plane Block and Pre-emptive Single-dose Oral Tizanidine for Postoperative Analgesia After Mastectomy Surgery: a Prospective, Randomized, Controlled Trial	2025	Not available	Full Text Not Available

[Unknown authors]	Comparison of Effectiveness of Adding Ketamine or Neostigmine to Bupivacaine for Ultrasound Guided Serratus Anterior Plane Block in Modified Radical Mastectomy , Randomized Double Blinded Comparative Study.	2020	Not available	Before 2021
[Unknown authors]	Comparative Study of Bupivacaine Versus Bupivacaine-Dexmedetomidine in Ultrasound Guided Serratus Plane Block for Patients Undergoing Modified Radical Mastectomy	2018	Not available	Full Text Not Available
[Unknown authors]	The Effect of Pectoralis Block on Analgesia After Simple Mastectomy	2017	Not available	Full Text Not Available
[Unknown authors]	Effect of Intravenous Infusion of Lidocaine and Remifentanil Perioperatively in Patients Undergoing Mastectomy: a Prospective, Randomized, Double-blind Study	2014	Not available	Before 2021
[Unknown authors]	Comparison of PECS II Block and Combined Serratus Anterior Plane Block to Reduce Acute Pain After Mastectomy	2023	Not available	Full Text Not Available
[Unknown authors]	Ultrasound-Guided Serratus Posterior Superior Intercostal Plane Block Versus Erector Spinae Plane Block for Postoperative Pain Management After Modified Radical	2026	Not available	Full Text Not Available

	Mastectomy: A Randomized Clinical Trial			
[Unknown authors]	Effect of Erector Spinae Plane Block Versus Local Wound Infiltration on Postoperative Pain After Modified Radical Mastectomy	2024	Not available	Full Text Not Available
[Unknown authors]	Pectoralis (II) Block With Liposomal Bupivacaine vs Bupivacaine Plus Dexamethasone for Mastectomy With Immediate Reconstruction	2017	Not available	Full Text Not Available
[Unknown authors]	Regional Anesthesia Techniques in Breast Surgery: a Comparative Study	2025	Not available	Full Text Not Available
[Unknown authors]	Cluster-Randomized, Prospective Assessment of Postoperative Pain Management in Patients Undergoing Bilateral Mastectomy With Immediate Reconstruction With Tissue Expander (BMWRw/TE) Using Preoperative Paravertebral (PVB), Serratus+PECS-1, or PVB+PECS-1 Ne	2019	Not available	Before 2021
[Unknown authors]	Mastectomy and Axillary Dissection: Evaluation of the Effect of Serratus Posterior Superior Intercostal Plane Block on Postoperative Analgesia: A Multicenter, Randomized,	2026	Not available	Full Text Not Available

	Placebo-Controlled Trial			
[Unknown authors]	Dexmedetomidine as an Adjuvant to Bupivacaine for Serratus-Intercostal Versus Erector-Spinae Plane Block to Relieve Post-Mastectomy Pain	2026	Not available	Full Text Not Available
[Unknown authors]	The Effect of Rhomboid Intercostal and Subserratus Plane Block on the Postoperative Analgesia of Patients Undergoing Radical Mastectomy: Randomized Controlled Study	2019	Not available	Full Text Not Available
[Unknown authors]	Comparison of Erector Spina Plane Block and Thoracic Epidural Block in Breast Surgery	2020	Not available	Wrong outcome studied
[Unknown authors]	Comparative Study Between the Efficacy of The Serratus Anterior Plane Block and Lumbar Intrathecal Fentanyl Injection for Postoperative Analgesia After Modified Radical Mastectomy	2022	Not available	Full Text Not Available
[Unknown authors]	Bilevel Erector Spinae Plane Block Versus Pecto-serratus Block for Analgesia in Modified Radical Mastectomy in Cancer Surgery	2026	Not available	Full Text Not Available
[Unknown authors]	The Effect of Adding Morphine as an Adjuvant to Local Anesthetic in Erector Spinae Plane Block on Management of Acute	2023	Not available	Full Text Not Available

	Post Mastectomy Pain : A Randomized Controlled Trial			
[Unknown authors]	Ultrasound Guided Pectoral Nerve Block Using Bupivacaine Versus Bupivacaine and Dexmedetomidine as a Supplement to General Anesthesia in Modified Radical Mastectomy	2020	Not available	Full Text Not Available
[Unknown authors]	Ultrasound-guided Thoracic Interfascial Plane Nerve Block Versus Erector Spinae Plane Block for Postoperative Pain Control in Patients Undergoing Modified Radical Mastectomy	2024	Not available	Full Text Not Available
[Unknown authors]	"Serratus Anterior Plane Block" Versus "Serratus Posterior Superior Plane Intercostal Plane Block" for Patients Undergoing Breast Surgery	2024	Not available	Full Text Not Available
[Unknown authors]	Analgesic and Pulmonary Function Effects of Erector Spinae Plane Block Versus Paravertebral Plane Block for Women's Undergoing Modified Radical Mastectomy; Randomized Comparative Study	2018	Not available	Wrong outcome studied
[Unknown authors]	Intraoperative Intravenous Infusion of Dexmedetomidine Versus Lidocaine in Management of Acute Postoperative Pain After Modified Radical	2025	Not available	Full Text Not Available

	Mastectomy: A Randomized Trial			
[Unknown authors]	Pain Control in Breast Surgery: Analgesia, Opioid Consumption and Inflammatory Response Evaluation	2015	Not available	Before 2021
[Unknown authors]	Comparison Between Analgesic Effect of Adding Dexamedatomidine or Dexamethasone to Bupvicaine in Rhomboidal Intercostal Plain Block and Subserratus Block in Breast Surgery	2022	Not available	Full Text Not Available
[Unknown authors]	Comparison of Postoperative Analgesic Efficacy of Serratus Posterior Superior Intercostal Plane Block and Serratus Anterior Plane Block in Modified Radical Mastectomy Surgery	2026	Not available	Full Text Not Available
[Unknown authors]	Comparison Between Ultrasound Guided Erector Spinae Plane Block Versus Ultrasound Guided Serratus Anterior Plane Block Regarding Analgesia Post Modified Radical Mastectomy	2025	Not available	Full Text Not Available
[Unknown authors]	The Analgesic Efficacy of Pecto-Intercostal Fascial Block Combined With Pectoral Nerve Block II Versus Serratus Plane Block in Modified Radical Mastectomy	2025	Not available	Full Text Not Available

[Unknown authors]	Comparison of Effectiveness of Ultrasound Guided Erector Spinae Plane Block With Ultrasound Guided Serratus Anterior Block in Modified Radical Mastectomy, Randomized Single Blinded Comparative Study.	2020	Not available	Full Text Not Available
[Unknown authors]	A Randomized, Double-blind Study to Compare the Efficacy of Intravenous Dexmedetomidine Infusion, Oral Gabapentin and Their Combination on Postoperative Analgesia in Cancer Patients Undergoing Modified Radical Mastectomy	2024	Not available	Wrong route of administration
[Unknown authors]	Comparison of Ultrasound-Guided Type-II Pectoral Nerve Block and Rhomboid Intercostal Block for Pain Management Following Mastectomy Surgery	2020	Not available	Before 2021
[Unknown authors]	Does Local Morphine Add to Local Anesthetics in Serratus Anterior Plane Block for Post Mastectomy Pain Has a System Analgesic Effect? A Clinical and Pharmacokinetics Study	2016	Not available	Wrong outcome studied

[Unknown authors]	Comparative Study Between Ultrasound Guided Mid-point Transverse Process to Pleura Block And Erector Spinae Plane Block For Perioperative Analgesia In Modified Radical Mastectomy In Breast Cancer Patients	2025	Not available	Full Text Not Available
[Unknown authors]	Effect of Adding Dexmedetomidine, Ketamine and Their Combination to Bupivicaine in Thoracic Epidural Analgesia on Post-mastectomy Pain	2017	Not available	Full Text Not Available
[Unknown authors]	Ultrasound Guided Retrolaminar Versus Erector Spinae Plane Block for Postoperative Analgesia in Modified Radical Mastectomy	2020	Not available	Before 2021
[Unknown authors]	Comparisons the Analgesia of Paravertebral Block Combined With Thoracic Wall Block Versus Paravertebral Block Alone for Modified Radical Mastectomy in Breast Cancer	2016	Not available	Before 2021
[Unknown authors]	Effect of Adding Magnesium Sulfate to Local Anesthetic in Combined Pectoral Nerve and Stellate Ganglion Block for Postoperative Pain Control After Modified Radical Mastectomy	2025	Not available	Full Text Not Available
[Unknown authors]	Research of the Effects of Pectoralis Nerve Block II and Erector	2019	Not available	Before 2021

	Spina Plan Block in Breast Cancer Surgery			
[Unknown authors]	The Effect of Pectoralis Nerve Block on Quality of Recovery in Patients Undergoing Breast-conservative Surgery	2022	Not available	Wrong indication
[Unknown authors]	Perioperative Analgesic Modalities for Breast Cancer Surgeries	2020	Not available	Before 2021
[Unknown authors]	Regional Nerve Blocks in Alloplastic Breast Reconstructive Surgery: A Pilot, Randomized Controlled Trial	2020	Not available	Before 2021
[Unknown authors]	Comparison Between Levobupivacaine 0.25% and Levobupivacaine With Dexmedetomidine in Ultrasound Guided Modified Pectoral Nerve Block, a Double Blind Randomised Controlled Trial.	2014	Not available	Before 2021
[Unknown authors]	Comparison Between Thoracic Para-vertebral Block and Segmental Thoracic Spinal Anesthesia in Breast Cancer Surgery	2017	Not available	Before 2021
[Unknown authors]	Efficacy and Safety of Ketamine Added to Local Anesthetic in Modified Pectoral Block for Management of Postoperative Pain in Patients Undergoing Modified Radical Mastectomy	2015	Not available	Before 2021
[Unknown authors]	Comparison of Single-level and Two-level Serratus	2024	Not available	Full Text Not Available

	Posterior Superior Intercostal Plan Block (SPSIPB) Applications in the Treatment of Acute Pain After Mastectomy			
[Unknown authors]	Comparing Effect of Adding Ketamine Versus Dexmedetomidine to Bupivacaine in Pec 11 Modified Block on Postoperative Pain Control in Patients Undergoing Breast Surgery	2020	Not available	Before 2021
[Unknown authors]	The Effectiveness of Pain Relieve of Ultrasound-guided Erector Spinae Plane Block Versus Serratus Anterior Plane Block With General Anesthesia in Modified Radical Mastectomy Patient (Randomized Double-Blinded Controlled Clinical Trial)	2018	Not available	Before 2021
[Unknown authors]	Effectiveness of Ultrasound Guided PECS Block on Opioid Consumption and Patient Satisfaction Through Adequate Pain Control Following Breast Cancer Surgery. A Prospective Randomized Controlled Trial	2020	Not available	Full Text Not Available
[Unknown authors]	Addition of Dexmedetomidine to Ropivacaine for Ultrasound Guided Erector Spinae Block: Evaluation of Effect on Postoperative Pain	2019	Not available	Before 2021

	After Breast Surgery: A Double-Blinded, Prospective, Randomized Clinical Trial			
[Unknown authors]	ESPBs vs TAPs for Satisfactory Analgesia Following DIEP Surgery	2023	Not available	Full Text Not Available
[Unknown authors]	A Randomised, Double-blind, Placebo-controlled Study to Assess the effectIveness of Pectoral Nerves Block (PECS) After Breast Surgery on Piritramide Consumption	2016	Not available	Full Text Not Available
[Unknown authors]	Serratus Anterior Plane Block Versus Erector Spinae Plane Block With Dexmedetomidine Added to Bupivacaine for Ultrasound-Guided Pain Management After Mastectomy	2024	Not available	Full Text Not Available
[Unknown authors]	Efficacy of the Mid-point Transverse Process to Pleura Block Versus Serratus Anterior Plane Block for Postoperative Analgesia After Modified Radical Mastectomy as a Randomized Trial	2024	Not available	Full Text Not Available
[Unknown authors]	Ketamine as Adjunctive Analgesic With Bupivacaine in Paravertebral Analgesia for Breast Cancer Surgery	2015	Not available	Before 2021

[Unknown authors]	Comparison of the Analgesic Efficacy of Combined Superficial and Deep Serratus Anterior Plane Block Versus Superficial Serratus Anterior Plane Block Following Modified Radical Mastectomy Surgery	2026	Not available	Full Text Not Available
[Unknown authors]	A Comparative Evaluation of Opioid Free Anaesthesia Technique Versus the Conventional Technique in Oncological Breast Surgery	2024	Not available	Full Text Not Available
[Unknown authors]	Thoracic Paravertebral Block Anesthesia for Breast Cancer Surgery: Single-Injection Versus Multiple Injections. A Randomized Controlled Trial	2022	Not available	Full Text Not Available
[Unknown authors]	NOL-Guided Intraoperative Remifentanil Consumption With PECS-II and Erector Spinae Plane Blocks in Breast Surgery: A Randomized Controlled Trial	2025	Not available	Full Text Not Available
Desai A.; Borowsky P.A.; Mantero M.; Shields C.; Bustos V.P.; Arakelians A.; Rojas K.E.; Weisman R.; Oeltjen J.C.; Kassira W.	Effectiveness of pre-incision vs. post-incision PECS II block for breast reconstruction pain: A retrospective cohort study	2026	10.1016/j.bjps.2026.05.027	Wrong intervention
Motaung N.; Mogotsi K.; Sehlapelo M.	Erector spinae plane block versus local anaesthesia instillation via the surgical drain in	2026	10.51168/sjhrafrica.v7i2.2672	Wrong outcome studied

	mastectomy patients at a tertiary institution			
Singh S.; Awasya S.; Pandey V.	To evaluate the analgesic efficacy of serratus anterior plane block and local infiltration with 0.25% bupivacaine in patients undergoing modified radical mastectomy	2026	10.69605/ijlbpr_15.5.2026.6	Full Text Not Available
Butt S.; Ashraf U.; Jamal A.W.; Iqbal A.; Qayyum A.; Shahzad	THORACIC PARAVERTEBRAL BLOCK VERSUS PECTORAL NERVE BLOCK FOR ANALGESIA AFTER MODIFIED RADICAL MASTECTOMY	2026	10.4238/0bbzdq72	Wrong route of administration
Kiran S.; Kumar G.	Comparative Analgesic Efficacy of Adding Magnesium Sulphate to Bupivacaine in Serratus Anterior Plane Block for Post-Mastectomy Pain: A Comparative Study	2026	10.25258/ijcpr.18.1.221	Wrong study design
Afreen H.; Joshi V.; Fatima S.; Andigi B.	A Study to Compare Ropivacaine with Buprenorphine and Ropivacaine with Dexmedetomidine in Ultrasound-Guided Thoracic Paravertebral Block for Breast Surgeries	2026	10.69605/ijlbpr_15.2.2026.157	Wrong study design
Arunkumar S.; Iniya R.; Lazarus S.P.; Dinesh Babu B.	A Randomized Controlled Study on Postoperative Analgesic Efficacy of USG Guided PEC I and PEC II Block in Breast Surgery	2026	10.25258/ljddt.16.43s.8	Wrong intervention
Botvinov J.; Sidoti H.; Pham M.; McGreevy C.	Comparative Analysis of Perioperative Outcomes: Pectoralis Block Versus Traditional Anesthesia	2026	10.1245/s10434-026-19303-y	Full Text Not Available

	in Breast-conserving Surgery with Axillary Sentinel Lymph Node Biopsy			
Arora R.; Kumar S.	Comparing Intraoperative Intravenous Ketamine and Dexmedetomidine for Post-Operative Analgesia after Modified Radical Mastectomy	2026	Not available	Full Text Not Available
Gabriel R.A.; Curran B.P.; Swisher M.W.; Sztain J.F.; Tsuda P.S.; Said E.T.; Alexander B.; Finneran J.J.; Abramson W.B.; Black J.R.; Wallace A.M.; Blair S.; Donohue M.C.; Abdullah B.; Xu N.Y.; Cha B.J.; Ilfeld B.M.	Paravertebral versus Pectoralis-II (Interpectoral and Pectoserratus) Nerve Blocks for Postoperative Analgesia after Nonmastectomy Breast Surgery: A Randomized, Controlled, Observer-masked Noninferiority Trial	2024	10.1097/ALN.0000000000005207	Wrong indication
Mukherjee A.; Das A.; Mayur N.; Bhattacharyya C.; Biswas H.; Mitra T.; Roybasunia S.; Mandal S.K.	Comparative evaluation of analgesic sparing efficacy between dexmedetomidine and clonidine used as adjuvant to ropivacaine in thoracic paravertebral block for patients undergoing breast cancer surgery: A prospective, randomized, double-blind study	2018	10.4103/sja.SJA_81_18	Study retracted
Kurada G.; Erdogan Kayhan G.; Sanal S.; Onay M.; Gulec M.S.	Comparison of sympathetic block and hemodynamic effects of erector spinae plane block and thoracic epidural analgesia in breast surgery: a	2026	10.1186/s12871-026-03694-2	Wrong intervention

	randomised controlled trial			
Anonymous.	Comparison of Analgesic Effectiveness of Different Volumes of Serratus Posterior Superior Intercostal Plane Block In Patients Undergoing Modified Radical Mastectomy Surgery	2026	Not available	Full Text Not Available
Anonymous.	Erector Spinae Plane Block (ESPB) Versus Intravenous Lidocaine Infusion for Postoperative Pain and Quality of Recovery in Patients Undergoing Breast Reduction Surgery: A Single Center, Prospective, Randomized Study	2026	Not available	Full Text Not Available
Anonymous.	Comparison of Rhomboid Intercostal-Subserratus Plane Block and Serratus Posterior Superior Intercostal Plane Block for Postoperative Analgesia and Dermatomal Spread After Modified Radical Mastectomy: A Randomized Double-Blind Trial	2026	Not available	Full Text Not Available
Anonymous.	Ultrasound-Guided Subtransverse Interligamentary Plane Block Versus Thoracic Paravertebral Block for Quality of Recovery After Modified Radical Mastectomy: A Randomized Non-Inferiority Trial	2026	Not available	Full Text Not Available

Anonymous.	Comparison of Serratus Posterior Superior Intercostal Plane Block Versus Deep Serratus Anterior Plane Block for Postoperative Analgesia After Breast Surgery: a Prospective Randomized Study	2024	Not available	Wrong study design
Anonymous.	Comparison of Serratus Posterior Superior Intercostal Plane Block and Rhomboid Intercostal Block for Postoperative Analgesia Following Breast Cancer Surgery With Axillary Lymph Node Dissection: A Randomized Controlled Trial	2026	Not available	Full Text Not Available
Anonymous.	Comparison of Serratus Posterior Superior Intercostal Plane Block and Erector Spinae Plane Block in Breast Surgery in Terms of Ease of Application and Patient Comfort	2026	Not available	Wrong intervention
Anonymous.	Comparison of Mean Duration of Analgesia Following the Administration of Bupivacaine With and Without Magnesium Sulphate in Ultrasound Guided Erector Spinae Plane Block in Modified Radical Mastectomy Patients	2026	Not available	Full Text Not Available
Anonymous.	Efficacy of Adding Magnesium Sulphate to Combined Pectointercostal Plane Block and Erector Spinae Plane Block for	2026	Not available	Full Text Not Available

	Acute and Chronic Post-Mastectomy Pain After Modified Radical Mastectomy. A Controlled Clinical Trial			
Anonymous.	Comparison of Costotransverse Foramen Block With Erector Spinae Plane Block in Modified Radical Mastectomy: A Randomized Controlled Trial	2026	Not available	Full Text Not Available
Anonymous.	Ultrasound Guided Pectoral Nerve Block (PEC I) Versus Serratus Anterior Plane Block (SAPB) for Postoperative Analgesia in Modified Radical Mastectomy	2026	Not available	Full Text Not Available
Anonymous.	The Impact of Intraoperative Methadone on Postoperative Opioid Use	2025	Not available	Full Text Not Available
Anonymous.	Ultrasound-Guided Modified Pectoral Plane (PECS II) Block Versus Midpoint Transverse Process to Pleura (MTP) Block for Postoperative Analgesia of Modified Radical Mastectomy	2023	Not available	Full Text Not Available
Anonymous.	Effect of Erector Spinae Plane Block on Postoperative Pain in Patients With Breast Cancer Implant Reconstruction	2021	Not available	Full Text Not Available
Anonymous.	Patient Quality of Recovery From Mastectomy With and Without PECS Block	2023	Not available	Full Text Not Available

	With Liposomal Bupivacaine			
Anonymous.	Efficacy of Magnesium Sulfate as an Adjuvant to Local Anesthetic in Erector Spinae Plane Block for Post-operative Analgesia After Modified Radical Mastectomy	2023	Not available	Wrong study design
Anonymous.	Prospective Comparison of Single-Injection Serratus Anterior Plane Block With Ropivacaine Versus Local Infiltration of Anaesthetic After Breast Surgery	2021	Not available	Full Text Not Available
Anonymous.	Efficacy and Safety of Ketamine Versus Magnesium Sulphate as Adjuvants to Levobupivacaine in Ultrasound (US) Bi-level Erector Spinae Block in Breast Cancer Surgery	2020	Not available	Before 2021
Anonymous.	Efficacy and Safety of Dexmedetomidine Added to Modified Pectoral's Block in Patient Undergoing Breast Cancer Surgery :A Comparative Study	2017	Not available	Before 2021
Anonymous.	Effectiveness of Adding Magnesium Sulphate to Bupivicaine in Ultrasound Guided Serratus Anterior Plane Block in Patients Undergoing Modified Radical Mastectomy	2020	Not available	Before 2021

Anonymous.	Effects of Regional Anesthesia on Postoperative Recovery and Opioid Consumption Following Mastectomy: A Retrospective Study	2022	Not available	Full Text Not Available
Anonymous.	Ultrasound Guided Thoracic Erector Spine Plane Block for Post Mastectomy Pain Control, Effect of Volume With Constant Drug Mass, a Randomized Controlled Trial	2022	Not available	Wrong intervention
Anonymous.	Effectiveness of Serratus Anterior Muscle Plane Block With Thoracic Paravertebral Block For Unilateral Mastectomies	2016	Not available	Before 2021
Anonymous.	Analgesic Effect to Postoperative Pain After Mastectomy: Ultrasound-guided Serratus Anterior Plane Block	2015	Not available	Before 2021
Anonymous.	A Comparative Study for Evaluation of the Analgesic Profile of Ultrasound-Guided Modified Pectoral Nerves Block Versus Serratus Plane Block in Major Breast Cancer Surgery	2016	Not available	Before 2021
Anonymous.	A Comparative Study of Ultrasound Guided PECS Block Using Bupivacaine Adenosine Versus Bupivacaine Magnesium Sulphate: A Randomised Controlled Trial	2017	Not available	Before 2021

Anonymous.	Quality of Recovery After Major Breast Cancer Surgery: a Prospective Multicentre Randomized Triple Blinded Trial Comparing Erector Spinae Plane Block and Intravenous Lidocaine Infusion	2024	Not available	Full Text Not Available
Anonymous.	The Analgesic Efficacy of the Pectoral Nerves Block Versus Local Anesthetic Infiltration After Mastectomy: a Randomized, Controlled, Double Blinded Trial	2019	Not available	Full Text Not Available
Anonymous.	Prospective, Randomized, Blinded Comparison of Bupivacaine Versus Liposomal Bupivacaine For Breast Pain Management After Unilateral, Immediate Breast Reconstruction	2017	Not available	Full Text Not Available
Anonymous.	Ultrasound Guided Rhomboid Intercostal Block Combined With Sub-Serratus Plane Block vs Type 2 Pectoral Nerve Block in Analgesia for Breast Cancer Surgery	2024	Not available	Wrong patient population
Anonymous.	The Effect of Serratus Plane Block in Preventing Postoperative Pain and Chronic Pain After Breast Cancer Surgery	2018	Not available	Full Text Not Available
Anonymous.	The Effects of Perioperative PECS Block on Postoperative Pain Control During Robotic Breast Surgery	2020	Not available	Full Text Not Available

	and Breast Reconstruction - Double Blind Randomized Controlled Trial -			
Anonymous.	Dexmedetomidine Ropivacaine Versus Plain Ropivacaine in Bilateral Pectoralis Nerve Block	2023	Not available	Full Text Not Available
Anonymous.	Serratus Anterior Muscle Plane Block Versus Paravertebral Block for Breast Cancer Resections	2014	Not available	Before 2021
Anonymous.	Analgesic Effect of Adding Thoracic Paravertebral Nerve Blocks to Modified PEC Block in Breast Cancer Surgery, Prospective Randomized Controlled Study	2019	Not available	Full Text Not Available
Anonymous.	The Effect of Ultrasonography-guided Pectoserratus Plane Block, Erector Spina Plane Block and Serratus Anterior Plane Block on Postoperative Opioid Consumption, Recovery Quality and Chronic Pain in Breast Cancer Surgery Patients	2024	Not available	Full Text Not Available
Anonymous.	Ultrasound-Guided Modified Pectoral Plane (PECS II) Block Versus Erector Spinae Plane Block (ESPB) for Postoperative Analgesia of Modified Radical Mastectomy	2024	Not available	Full Text Not Available

Anonymous.	Efficacy of the Serratus Posterior Superior Intercostal Plane Block for Postoperative Analgesia in Breast Cancer Surgery : A Randomized Comparative Study	2024	Not available	Trial ongoing
Anonymous.	Comparing the Perioperative Analgesic Effect of Two Different Volumes of Local Anesthetic Solution in Erector Spinae Plane Block in Patients Undergoing Modified Radical Mastectomy A Randomized Comparative Study	2022	Not available	Full Text Not Available
Anonymous.	Erector Spinae Plane Block Versus Serratus Plane Block on Postoperative Opioid Consumption for Modified Radical Mastectomy and Axillary Lymph Node Dissection	2018	Not available	Full Text Not Available
Anonymous.	Analgesic Efficacy of Magnesium Sulphate as an Adjuvant to Levobupivacaine in Erector Spinae Block for Acute Pain Management in Modified Radical Mastectomy	2021	Not available	Full Text Not Available
Anonymous.	Evaluation of a Breast Biblock Analgesia for the Mastectomy With Radical Axillary Lymphadenectomy Surgery	2016	Not available	Full Text Not Available
Anonymous.	Comparison of Ultrasound-Guided Erector Spinae Plane	2021	Not available	Wrong intervention

	Block and Rhomboid Intercostal Block for Pain Management Following Mastectomy Surgery			
Anonymous.	Ultrasound-guided PECS2 (The Pectoralis) Block Versus Intrathecal Morphine for Postoperative Analgesia After Mastectomy	2023	Not available	Full Text Not Available
Anonymous.	Effect of Adding Magnesium Sulphate to Bupivacaine on the Quality of Ultrasound-guided Serratus Plane Block in Patients Undergoing a Modified Radical Mastectomy	2019	Not available	Before 2021
Anonymous.	Effect of Combined Modified Pectoralis and Transversus Plane Blocks Versus Erector Spinae Block on Postoperative Analgesia Following Modified Radical Mastectomy	2019	Not available	Before 2021
Anonymous.	Ultrasound-guided Erector Spinae Plane Block Versus Paravertebral Block in Breast Cancer Patients Undergoing Mastectomy With Immediate Reconstruction - a Non-inferiority Trial. A Single-centre Randomized Controlled Non-inferiority Trial With a Parallel Gr	2022	Not available	Full Text Not Available

Anonymous.	Analgesic Effects Of Dexamethasone; Its Use To Reduce Post Operative Pain Scores: A Double Blinded Randomised Controlled Clinical Trial	2015	Not available	Full Text Not Available
Anonymous.	Improvement of Analgesia With Addition of Pectoral Nerve Block to Thoracic Paravertebral Blocks in Unilateral Total Simple Mastectomy	2013	Not available	Before 2021
Anonymous.	Analgesic Effects of Ultrasound Guided PEC Blocks on Analgesic Opioid Consumption of Cancer Surgery Patients	2015	Not available	Full Text Not Available
Anonymous.	Efficacy of Serratus Anterior Plane Block Using Bupivacaine/Magnesium Sulphate Versus Bupivacaine/Nalbuphine for Mastectomy: a Randomized Double Blinded Comparative Study	2019	Not available	Before 2021
Anonymous.	Comparison of the Ultrasound Guided Erector Spinae Plane Block Versus Serratus Plane Block in Totally Mastectomy	2018	Not available	Before 2021
Anonymous.	Dexamethasone Versus Dexmedetomidine as Adjuncts to Serratus Anterior Plane Block for Postoperative Analgesia After Modified Radical Mastectomy A	2024	Not available	Full Text Not Available

	Randomized Clinical Study			
Anonymous.	Analgesic Efficacy of Dexmedetomidine as Adjuvant to Levobupivacaine in Ultrasound-guided Erector Spinae Plan Block for Modified Radical Mastectomy	2021	Not available	Full Text Not Available
Anonymous.	Evaluation of a Breast Double Block Analgesia for the Mastectomy With Radical Axillary Lymphadenectomy Surgery	2017	Not available	Before 2021
Anonymous.	Comparison of Efficacy of Ultrasound-guided Erector Spinae Plane Block Versus Thoracic Paravertebral Block for Intra and Postoperative Pain Control in Modified Radical Mastectomy: a Randomized Controlled Trial	2020	Not available	Before 2021
Anonymous.	Comparison of Rhomboid Intercostal Block and Erector Spina Plan Block for Peri-operative Analgesia in Mastectomy	2020	Not available	Full Text Not Available
Anonymous.	Efficacy of Different Doses of Dexmetomedine as an Adjuvant to Bupivacaine in Ultrasound Guided PECS Block in Patients Undergoing Modified Radical Mastectomy	2023	Not available	Full Text Not Available

Anonymous.	The Effect of Ultrasound-guided Rhomboid Intercostal Block and Serratus Anterior Plane Block on Postoperative Respiratory Functions and Analgesia After Breast Surgery	2022	Not available	Wrong outcome studied
Anonymous.	Analgesic Efficiency of Superficial Serratus Plane Block for Modified Radical Mastectomy and Axillary Lymph Node Disection: Randomized Controlled Study	2017	Not available	Before 2021
Anonymous.	Comparison Between Serratus Anterior Plane Block and Erector Spinae Plane Block to Control Postmastectomy Pain	2020	Not available	Full Text Not Available
Anonymous.	Is PECS Block Equivalent to Paravertebral Block in Preventing Postoperative Pain After Breast Surgery? A Randomized, Controlled, Double-blind, Multicenter Trial	2015	Not available	Before 2021
Anonymous.	Efficacy of Adding Tramadol as Adjunctive Analgesic With Levobupivacaine in Modified Pectoral Nerve Block for Modified Radical Mastectomy Surgery	2015	Not available	Before 2021
Anonymous.	Erector Spinae Plane Block in Different Volumes on Postoperative Pain Control Following	2022	Not available	Wrong intervention

	Breast Surgery: A Randomized, Prospective Study			
Anonymous.	The Effect of Esketamine on the Quality of Recovery After Modified Radical Mastectomy	2022	Not available	Wrong intervention
Anonymous.	Comparison Between Serratus Anterior Plane Block, and Transversus Thoracic Plane Block Combined With Serratus Anterior Plane Block, for the Management of Post-mastecomy Pain	2020	Not available	Full Text Not Available
Anonymous.	Evaluation of Palonosetron and Palonosetron/Aprepitant in Post Operative Nausea and Vomiting Incidence in Oncological Patients	2015	Not available	Wrong intervention
Anonymous.	Ultrasound-guided Serratus Plane Block for the Quality of Recovery After Modified Radical Mastectomy	2016	Not available	Before 2021
Anonymous.	An Open Approach Versus Ultrasound Approach for Serratus Anterior Plane Block for Postoperative Analgesia After Modified Radical Mastectomy: A Non-inferiority Study	2021	Not available	Full Text Not Available
Anonymous.	Effect of Dexmedetomidine and Esketamine Combined Infusion on Postoperative Pain and Recovey Quality	2022	Not available	Wrong intervention

	Undergoing Modified Radical Mastectomy			
Anonymous.	Paravertebral Block Versus Pectoral Nerve Block for Analgesia Following Mastectomy	2017	Not available	Study terminated
Anonymous.	Combined General Anesthesia Plus Paravertebral Block Versus General Anesthesia Plus Opioid Analgesia for Breast Cancer Surgery: A Prospective Randomized Trial	2013	Not available	Before 2021
Anonymous.	Effect of Adding Dexmedetomidine As Adjuvant to Bupivacaine in Ultrasound Guided Erector Spinae Plane Block for Post Modified Radical Mastectomy Pain Management	2023	Not available	Wrong intervention
Anonymous.	The Effect of Intraoperative Dexmedetomidine-Ketamine Infusion on the Patients Undergoing Radical Mastectomy: Randomized Controlled Study	2019	Not available	Full Text Not Available
Anonymous.	Ropivacaine 0,2% Plus Dexamethasone Versus Ropivacaine 0,2% Plus Placebo in Modified Pectoral Block - a Randomized, Double-blind, Prospective Trial	2018	Not available	Before 2021
Anonymous.	The Analgesic Efficacy of the Pectoral Block After Mastectomy	2016	Not available	Before 2021

Anonymous.	Efficacy Of Magnesium Sulphate Versus Ketamine as an Adjuvant to Bupivacaine in Pectoral Nerve Block During Mastectomy : Comparative Controlled , Randomized Double-Blind Study	2022	Not available	Full Text Not Available
Anonymous.	Comparison of Erector Spina Plane Block and Serratus Anterior Plane Block in Patients Undergoing Mastectomy	2020	Not available	Before 2021
Anonymous.	Comparative Study Between Combined Modified Pectoral Nerve Block (PECSII) and Transversus Thoracic Plane Block Versus Erector Spinae Plane Block for Post-operative Analgesia Following Breast Surgeries, (randomized Clinical Trial Study)	2025	Not available	Full Text Not Available
Anonymous.	Thoracic Paravertebral Block Versus Pecs II Block for Perioperative Analgesia in Modified Radical Mastectomy	2016	Not available	Before 2021
Anonymous.	Is Serratus Posterior Superior Intercostal Plane Block Effective in Modified Radical Mastectomy Surgeries?	2023	Not available	Full Text Not Available
Anonymous.	Analgesic Efficacy of Rhomboid Intercostal Block With Sub-Serratus Plane Block Versus Erector Spinae Block in Breast Cancer Surgery	2025	Not available	Full Text Not Available

Anonymous.	Comparison Between Ultrasound-guided Pectoral Nerve Blocks, Thoracic Erector Spinae Plane Block and Serratus Anterior Plane Block for Breast Surgery: A Prospective Randomized Study	2025	Not available	Full Text Not Available
Anonymous.	Comparison of the Postoperative Analgesic Efficacy of Serratus Plane Block With Different Adjuvant Agents in Breast Cancer Surgery	2025	Not available	Full Text Not Available
Faisal M.; Afzal A.; Khalid H.B.; Ur Rehman H.; Ashfaq A.D.; Mehdi S.R.	Pectoral plane block compared to erector spinae plane block in multimodal analgesia for modified radical mastectomy patients -a prospective randomized controlled trial	2026	10.35975/apic.v30i1.3100	Full Text Not Available
Meena S.; Bhalekar A.; Kumari V.; Dubey R.; Pratap A.	A COMPARISON OF POSTOPERATIVE PAIN MANAGEMENT IN PATIENTS UNDERGOING MODIFIED RADICAL MASTECTOMY UNDER GENERAL ANAESTHESIA WITH OR WITHOUT PECTORAL NERVE BLOCK	2025	10.70034/ijmedph.2025.4.546	Full Text Not Available
Wells H.; Malik K.; Brasher P.M.A.; Bovill E.; Van Laeken N.; Warburton R.; Prabhakar C.; Li X.L.; Isaac K.V.	The addition of interpectoral and pectoserratus fascial plane blocks to paravertebral blocks for analgesia after total mastectomy and immediate breast reconstruction: a pilot	2025	10.1007/s12630-025-03030-1	Wrong outcome studied

	feasibility randomized controlled trial			
Wang Y.; Li S.; Tong H.	Effects of esketamine combined with ultrasound-guided pectoral nerve block on postoperative analgesia, fatigue and immune function in patients with breast cancer	2025	10.3760/cma.j.cn115807-20241028-00329	No English Text Available
Xue F.-S.; Wang D.-F.; Huang Z.-B.; Lin Y.-B.	Regarding effect of different doses of intravenous dexmedetomidine as an adjunct to the serratus anterior plane block in patients undergoing modified radical mastectomy: a randomized controlled trial	2025	10.1080/07853890.2025.2551279	Full Text Not Available
Raft J.; Dureau S.; Fuzier R.; Auge M.; Lamotte A.-S.; Lemoine A.; Albi-Feldzer A.	Erector spinae plane block versus paravertebral block for major oncological breast surgery: a multicentre randomised controlled trial	2025	10.1016/j.bja.2025.05.051	Wrong outcome studied
Chandrakant T.F.; Jain S.S.; Bhaveshbhai P.A.; Gosai N.D.	COMPARISON OF CONVENTIONAL GENERAL ANAESTHESIA VERSUS ERECTOR SPINAE PLANE BLOCK WITH GENERAL ANAESTHESIA IN POSTOPERATIVE PAIN MANAGEMENT FOR PATIENTS UNDERGOING MODIFIED RADICAL MASTECTOMY	2025	10.47009/jamp.2025.7.4.58	Wrong study design

Ankita; Agrawal R.; Bansal S.	Comparison Of Ultra Sound Guided Modified Pectoral Nerve Block Versus Erector Spinae Plane Block For Postoperative Pain Relief In Patients Undergoing Modified Radical Mastectomy - A Prospective Comparative Study	2025	10.69605/ijlbpr_14.12.2025.139	Full Text Not Available
Zhang R.; Li W.; Li J.; Tian Y.	Effect of low dose esketamine combined with ciprofol on stress level and postoperative recovery quality in elderly patients undergoing radical mastectomy	2025	10.3760/cma.j.cn115807-20250124-00038	Full Text Not Available
Zhou J.; Zhou R.; Tang S.-H.; Chen Z.; Zhang J.; Yang D.	Effect of liposomal bupivacaine combined with bupivacaine hydrochloride for transversus thoracic muscle plane block and pectoral nerves block in modified radical mastectomy for breast cancer: protocol for a randomised controlled trial	2025	10.1136/bmjopen-2025-101171	Trial ongoing
Mendonca F.T.; de Aviz M.A.B.; Bezerra A.P.S.; Silva L.G.; Gaspar E.E.; Terol B.N.; e Silva L.R.; Andrade L.M.	Efficacy of pectoserratus plane block versus erector spinae plane block on acute and chronic pain after mastectomy: randomized clinical trial	2025	10.1016/j.bjane.2025.844691	Wrong outcome studied
Raikwar S.; Kaushal R.P.; Soni S.; Jain P.; Thakur R.	To Study The Efficacy of USG - Guided Pectoral Nerve Block (PEC-II) and Serratus Anterior Plane Block (SAP) Using Levobupivacaine 0.25% in Patients	2025	Not available	Wrong intervention

	Undergoing Breast Surgeries			
Qu N.; Zhao X.; Ni Q.	Effects of single subanesthetic dose of oxycodone on pain and Th1/Th2 balance in patients after radical mastectomy	2025	10.13429/j.cnki.cjcr.2025.06.013	Full Text Not Available
Gu B.; Huang Z.-X.; Zhou H.-D.; Lian Y.-H.; He S.; Ge M.; Jiang H.-F.	A Randomized Controlled Trial of Adding Deep Parasternal Intercostal Plane Block to Interpectoral-Pectoserratus Plane Block in Breast Cancer Surgery	2025	10.1213/ANE.0000000000007218	Wrong intervention
Singh T.S.; Saravanan R.K.; Shanmugavalli E.	Effect of Dexmedetomidine Infusion in Analgesia and Intra-operative Hemodynamics in Major Surgeries under General Anesthesia: A Double Blinded Randomized Controlled Trial	2025	Not available	Full Text Not Available
Han L.; Cai Y.; Jin X.; Gao C.	Effects of dexmedetomidine combined with esketamine on postoperative analgesia, immune function and inflammatory response in patients undergoing radical mastectomy	2025	10.3760/cma.j.cn115807-20250102-00002	No English Text Available
Sreekumar A.; Kumar H.; Jain S.; Waindeskar V.; Ankita A.	DEXAMETHASONE VERSUS DEXMEDETOMIDINE AS AN ADJUNCT TO ROPIVACAINE IN SERRATUS ANTERIOR PLANE BLOCK FOR PATIENTS UNDERGOING	2025	10.1136/rapm-2025-ESRA.80	Full Text Not Available

	MODIFIED RADICAL MASTECTOMY-A PROSPECTIVE RANDOMIZED CLINICAL STUDY			
Sadikoglu N.; Yilbas A.A.; Debbag S.; Saricaoglu F.; Cennet O.	PECS I-II VS. ESP BLOCKS FOR CHRONIC POSTMASTECTOMY PAIN: A PROSPECTIVE COHORT STUDY ON ANALGESIC EFFICACY AND LONG-TERM OUTCOMES	2025	10.1136/rapm-2025-ESRA.228	Full Text Not Available
Ciftci B.; Basim P.; Gungor H.; Alver S.; Golboyu B.E.; Atalay Y.O. Agri : Agri (Algoloji) Dernegi'nin Yayin organidir = The journal of the Turkish Society of Algology /	Comparison of postoperative analgesic efficacy between erector spinae plane block and rhomboid intercostal block in breast-conserving surgery and sentinel lymph node biopsy: A randomized non-inferiority clinical trial	2025	10.14744/agri.2024.00087	Wrong intervention
Sheetal S.; Shubham S.; Sumitra S.; Ashwini A.; Rinto R.	THE EFFECT OF DIRECT VISION DEEP SERRATUS ANTERIOR PLANE BLOCK ON POST OPERATIVE PAIN IN BREAST SURGERIES: A RANDOMIZED DOUBLE BLIND PLACEBO CONTROL TRIAL (SEAN)	2025	10.1136/rapm-2025-ESRA.56	Full Text Not Available
Viswanath V.K.; Kant Singh A.	EFFECT OF ERECTOR SPINAE BLOCK WITH BUPIVACAINE AND KETAMINE VERSUS BUPIVACAINE ALONE ON ACUTE	2025	10.1136/rapm-2025-ESRA.66	Full Text Not Available

	POSTOPERATIVE PAIN AND OPIOID CONSUMPTION IN PATIENT UNDERGOING MODIFIED RADICAL MASTECTOMY			
Site S.; Kewalramani T.; Gupta D.; Ahirwal R.	A STUDY TO DETERMINE EFFECTIVENESS OF DEXMEDITOMIDINE IN ERECTOR SPINAE PLANE BLOCK FOR POSTOPERATIVE ANALGESIA IN PATIENTS UNDERGOING MODIFIED RADICAL MASTECTOMY	2024	10.48047/jcdr.2024.15.02.27	Wrong study design
Perez-Herrero M.A.; Fajardo Perez M.; Yamak Altinpulluk E.; Ergonenc T.	Usefulness of ultrasound-guided serratus-anterior block in prevention of postoperative pain after breast surgery. A cohort study	2024	10.1016/j.jclinane.2023.111360	Wrong patient population
Ayyamperumal A.	A COMPARISON OF ULTRASOUND GUIDED PARAVERTEBRAL BLOCK VERSUS SERRATUS ANTERIOR PLANE BLOCK FOR POSTOPERATIVE PAIN RELIEF IN MODIFIED RADICAL MASTECTOMY	2024	10.47009/jamp.2024.6.3.4	Wrong study design
Chakraborty A.; Agrawal S.; Bose S.; Ahmed R.; Khemka R.	Can combined paravertebral and erector spinae block provide perioperative analgesia for mastectomy with LD flap reconstruction	2024	10.3332/ecancer.2024.1781	Wrong study design

	surgery? An observational study			
Habib S.; Khaled Y.; Badawy S.; Talaat N.; Abdelkader A.	Combined Erector Spinae and Pecto-Intercostal Plane Blocks Versus Thoracic Paravertebral Block in Patients Scheduled for Modified Radical Mastectomy: A Randomized Controlled Trial	2024	10.4103/bjoa.bjoa_265_23	Full Text Not Available
Thallaj A.K.	Efficacy of erector spinae plane block versus deep serratus plane block for post-operative analgesia following modified radical mastectomy: a randomized controlled study	2024	Not available	Full Text Not Available
Zhang D.; Lei Y.; Jia J.	Effects of ropivacaine in serratus anterior plane block on analgesia, oxygen metabolism and postoperative cognitive function in patients undergoing radical mastectomy	2024	10.3760/cma.j.cn115807-20240614-00204	Full Text Not Available
Mishra S.; Janka J.; Sahu A.; Sahoo S.S.; Pradhan S.K.	Effect of Dexmedetomidine and Nalbuphine as an adjuvant to bupivacaine in paravertebral block for postoperative pain after modified radical mastectomy	2024	10.48047/jcdr.2024.15.07.103	Full Text Not Available
Ali E.A.; Awad H.G.S.; Sayed A.I.T.; Ahmed S.A.S.	A Comparative Study between Ultrasound Guided Pectoral Nerve Block Type II versus Intravenous Patient Controlled Analgesia for Intra-Operative and	2024	10.1093/qjmed/hcae070.040	Full Text Not Available

	Post-Operative Analgesia in Patients Undergoing Modified Radical Mastectomy			
Siddiqui N.; Foley C.; Liu F.; Gupta A.	Do paravertebral and erector spinae plane blocks improve pain outcomes in day case breast surgery? An initial audit to inform quality improvement	2024	10.1136/rapm-2024-ESRA.498	Full Text Not Available
Riad M.K.; El Moneim Fouly M.A.; Taeimah M.O.A.; Ahmed A.M.A.	Comparative Study between Pectoral Nerve Block Type-II (PECS II) and Serratus Anterior Plane Block (SAPB) in Postoperative Analgesic Efficacy in Modified Radical Mastectomy	2024	10.1093/qjmed/hcae070.093	Wrong outcome studied
Al-Taher W.A.M.M.; Ahmed N.S.H.; Khamis M.I.; Ahmed M.A.	Comparative Study between the Effect of Ultrasound Guided Erector Spinae Plane Block (ESPB) versus Serratus Anterior Plane Block (SAPB) for Postoperative Analgesia in Modified Radical Mastectomy Patients	2024	10.1093/qjmed/hcae175.066	Full Text Not Available
Asai O.; Balasubramanian B.; Bhokare H.; Raipure A.	PECSATT (PECtoralis-Serratus Anterior-Transverse Thoracis) plane block-a paradigm shift in breast surgery anesthesia: a new advance towards opioid free anesthesia	2024	10.1136/rapm-2024-ESRA.67	Full Text Not Available
Jackson J.; Mirocha J.; Wang X.; Amersi F.; Dang C.; Chung A.; Boyle M.; Giuliano A.; Karlan S.	A Surgeon-performed Deep Serratus Block Reduces Pain after Lumpectomy plus	2024	10.1245/s10434-024-15410-w	Full Text Not Available

	Axillary Surgery: A Proof of Concept			
Ibrahim S.F.; Labib H.A.E.A.; Sayed A.G.; El Malak M.A.E.A.	Comparative Study Between Ultrasound Guided Serratus Anterior Plane Block versus Thoracic Erector Spinae Plane Block as Postoperative Pain Management in Modified Radical Mastectomy	2024	10.1093/qjmed/hcae175.060	Full Text Not Available
McAllister T.; Wardle S.; Bloom C.; Obeid N.; Banerjee S.; Sen S.; Horsnell J.; Dharmaratne C.	Comparative analysis of surgical and anaesthetic pectoral blocks in mastectomy patients	2024	10.1016/j.ejso.2024.108193	Full Text Not Available
M.R.; Nemr N.E.; Lateef S.A.M.A.; Hamawy T.Y.; Tawab S.M.A. [first author surname missing in source]	Comparative Study between Ultrasound Guided Pectoral Nerve Block Type-II (PECS II) and Serratus Anterior Plane Block (SAPB) in Postoperative Analgesic Efficacy in Mastectomy	2024	10.1093/qjmed/hcae175.087	Before 2021
Nashed S.W.; El Shebiny A.A.; Sayed A.G.; Farag M.G.	Comparative Study between Ultrasound Guided Serratus Anterior Plane Block versus Thoracic Epidural as Postoperative Pain Management in Modified Radical Mastectomy	2024	10.1093/qjmed/hcae070.047	Full Text Not Available
Ibrahim A.S.M.; Ibrahim W.A.; Elshafeey A.E.A.M.; Owais A.S.R.S.	Comparative Study between Ultrasound Guided Modified Pectoral Nerve Block (PECSII) versus Ultrasound Guided Serratus Anterior Muscle Plane Block for Analgesia Following	2024	10.1093/qjmed/hcae175.005	Full Text Not Available

	Modified Radical Mastectomy			
Chyrmang M.W.; Bansal P.	Comparative evaluation of single shot rhomboid intercostal plane block, erector spinae plane block and serratus anterior plane block for perioperative analgesia in modified radical mastectomy: A randomised controlled trial	2024	10.4103/ija.ija_142_24	Wrong outcome studied
Abdelhamid A.E.E.; El Serwi H.B.E.; Abdelaziz N.M.; Mohamed A.G.	Comparative Study between Modified Pectoral Nerve Block versus Serratus Block for Analgesia For Modified Radical Mastectomy	2024	10.1093/qjmed/hcae070.018	Full Text Not Available
Mahmoud H.O.; Alansary A.M.; Koraitim A.F.I.; Ewais M.A.	Comparison between Pectoral Plane Block (PECS 1 and 2) and Patient Controlled Intravenous Analgesia after Breast Surgeries	2024	10.1093/qjmed/hcae175.064	Full Text Not Available
Shen L.; Xu Y.; Lu J.; He W.	Ultrasound-guided thoracic paravertebral nerve block in patients undergoing radical mastectomy	2023	10.22514/ejgo.2023.083	Wrong intervention
Mraovic B.; Simurina T.	Effects of an intravenous lidocaine bolus before tracheal extubation on recovery after breast surgery - Lidocaine at the End (LATE) study: a randomized controlled clinical trial	2023	10.3325/cmj.2023.64.222	Wrong outcome studied
Helmy M.H.; Soliman M.S.; Sobhy M.Z.; Fouad A.Z.; Mohamed A.A.; Doss L.H.; Abdelreheem A.M.	A randomized controlled study comparing thoracic paravertebral block to serratus anterior plane block in breast surgery	2023	10.47750/jptcp.2023.30.07.019	Wrong intervention

Hassan M.E.; Abdelgalil A.S.	Efficacy of dexmedetomidine as an adjuvant in erector spinae plane block in breast cancer surgery: a randomized controlled trial	2023	10.35975/apic.v27i1.2109	Wrong patient population
Dabour Y.S.; Elnoury A.S.; Daoud A.A.	Twenty-four-hour postoperative orphenadrine and ketorolac infusion efficiently precedes orphenadrine-diclofenac infusion as an opioid-sparing analgesic modality after mastectomy	2023	10.1080/11101849.2023.2247231	Wrong outcome studied
Chengqi D.; Kaiyuan W.; Guiyue W.; Aoxiang C.; Kaili Y.; Bin Z.; Shengchuan H.; Wangmu S.; Yiqing Y.	Combined pectoral nerves block II and transverse thoracic muscle plane block in prosthetic breast reconstruction surgery after radical mastectomy for stage breast cancer	2023	10.12354/j.issn.1000-8179.2023.20230103	No English Text Available
Li Y.; Liang W.; Tan Y.; Zhao Z.; Li M.; Xiong W.	Effects of general anesthesia combined with serratus anterior plane block on quality of life and postoperative pain in patients undergoing breast cancer surgery	2023	10.3760/cma.j.cn431274-20220720-00700	No English Text Available
Madhavi S.; Reddy V.V.K.; Praveen Kumar J.R.; Kiran L.V.; Thejas S.R.	EVALUATION OF EFFICACY OF COMBINED ULTRASOUND GUIDED PECTORAL NERVE BLOCK TYPE 2 WITH ROPIVACAINE AND GENERAL ANAESTHESIA OVER PLAIN GENERAL ANAESTHESIA IN	2023	Not available	Wrong patient population

	CANCER RELATED BREAST SURGERIES			
Hassan M.E.; Mahran E.	Effect of magnesium sulfate with ketamine infusions on intraoperative and postoperative analgesia in cancer breast surgeries: a randomized double-blind trial	2023	10.1016/j.bjane.2021.07.015	Wrong intervention
Cylwik J.; Celinska-Spodar M.; Buda N.	Evaluation of the Efficacy of Pectoral Nerve-2 Block (PECS 2) in Breast Cancer Surgery	2023	10.3390/jpm13101430	Wrong intervention
Yang D.; Wang Y.; Zhang J.; Ma R.	Optimization strategies of anesthesia for modified radical mastectomy: pecto-intercostal fascial block-pectoral nerve block type II-general anesthesia	2023	10.3760/cma.j.cn131073.20230311.00712	No English Text Available
Huang Z.; Liu N.; Hu S.; Ju X.; Xu S.; Wang S.	Effect of Dexmedetomidine and Two Different Doses of Esketamine Combined Infusion on the Quality of Recovery in Patients Undergoing Modified Radical Mastectomy for Breast Cancer-A Randomised Controlled Study	2023	10.2147/DDDT.S422896	Wrong intervention
Mallikarjuna; Deshpande N.; Alwandikar V.; Hatti P.; Gowda V.B.	Comparative evaluation of dexamethasone and dexmedetomidine as adjuvants for bupivacaine in ultrasound guided PEC blocks in patients undergoing modified radical mastectomy under general anaesthesia: A	2023	Not available	Full Text Not Available

	prospective randomized control trial			
Kayhan G.E.; Onay M.; Badak B.	RETROSPECTIVE EVALUATION OF PREOPERATIVE AND POSTOPERATIVE PECTORAL NERVE BLOCKS FOR ACUTE PAIN MANAGEMENT AFTER MODIFIED RADICAL MASTECTOMY: IMPACT ON QUALITY OF RECOVERY	2023	10.1136/rapm-2023-ESRA.586	Full Text Not Available
Rath A.	ULTRASOUND GUIDED SUB-TRANSVERSE INTERLIGAMENTARY BLOCK VS ERECTOR SPINAE PLANE BLOCK FOR POST-OPERATIVE PAIN MANAGEMENT IN CARCINOMA BREAST PATIENTS UNDERGOING MODIFIED RADICAL MASTECTOMY	2023	10.1136/rapm-2023-ESRA.102	Full Text Not Available
El Mageed A.M.S.A.; Emam D.F.; Nasr T.A.; Sabry M.; Mohamed B.	Comparison of Adding Magnesium Sulphate to Bupivacaine with Plain Bupivacaine in Ultrasound Guided Pectoral Nerve Block for Postoperative Analgesia in Modified Radical Mastectomy	2023	10.1093/qjmed/hcad069.075	Full Text Not Available
Hozien A.I.; Helmy A.M.; Koptan H.M.; Elfeil Y.E.; Yakout M.M.S.; Elwafa H.B.A.A.	Analgesic Effect of Addition of Pectointercostal Block to Serratus Anterior Plane Block in Breast Surgeries: A Randomized, Controlled Trial	2023	Not available	Wrong intervention

Neilands J.; Arthur L.; Alamki A.; Hutchieson C.; O'Reilly N.; Musyoka C.; Campbell J.	Comparing local & regional anaesthesia methods and post-operative pain scores in breast surgery	2023	10.1016/j.ejso.2023.03.195	Full Text Not Available
Avula P.; Bhutiani N.; Egger M.E.; McMasters K.M.; Ajkay N.	Regional Analgesia Decreases Postoperative Opioid Use after Mastectomy	2023	10.1097/01.XCS.0000932288.51344.12	Full Text Not Available
El Salam A.A.H.A.; Shokri H.; Moris K.E.; Mahmoud M.S.	Ultrasound Guided Modefied Pectoral Nerve Block (PECII) versus Serratus Anterior Plane Block (SAPB) for Postoperative Analgesia in Modified Radical Mastectomy	2023	10.1093/qjmed/hcad069.019	Full Text Not Available
Fawzy H.M.; Shoukry R.A.; Shawky E.; Elmaksoud A.; Mohamed N.E.H.	Ultrasound Guided Pectoral Nerve Block (PEC I) versus Serratus Anterior Plane block (SAPB) for Postoperative Analgesia in Modified Radical Mastectomy	2023	10.1093/qjmed/hcad069.083	Full Text Not Available
Foulad D.S.; Xu A.F.; Scott M.K.; Selfridge J.; Cheng T.; Momeni A.; Karin M.R.	Surgeon-Placed Pectoralis and Serratus Plane Blocks under Direct Visualization for Mastectomy and Immediate Breast Reconstruction Provide Excellent Postoperative Analgesia	2023	10.1097/XCS.0000000000000822	Full Text Not Available
Imruetaicharoenchoke W.; Tangwiwat S.; Rashatamukayanunt P.; Trisukhonth A.; Chuthapisith S.	Modified pectoral nerve block conducted Intraoperatively by surgeons Is effective for postmastectomy pain control: A prospective double-blinded randomized control trial	2023	10.1016/S0960-9776	Full Text Not Available

Kumar V.; Ahuja D.; Gupta N.; Bhatnagar S.; Mishra S.; Bharati S.J.; Garg R.	COMPARISON OF EFFICACY OF ULTRASOUND GUIDED SERRATUS ANTERIOR PLANE BLOCK VERSUS ERECTOR SPINAE PLANE BLOCK FOR POSTOPERATIVE ANALGESIA AFTER MODIFIED RADICAL MASTECTOMY-A RANDOMIZED CONTROLLED TRIAL	2023	10.1136/rapm-2023-ESRA.5	Full Text Not Available
Alexander B.; Mehdipour S.; Lee S.W.; Said E.T.; Gabriel R.A.	The association of Serratus Anterior Plane blocks with postoperative opioid use and analgesia following simple lumpectomy: a retrospective cohort analysis	2022	10.1186/s12871-022-01834-y	Wrong outcome studied
Wei Z.; Lei G.; Wu L.; Xi C.; Yin Y.; Wang G.	Effect of ultrasound-guided serratus plane block combined with pectoral nerve block on postoperative analgesia after radical mastectomy	2022	10.3760/cma.j.cn112137-20220513-01048	No English Text Available
Kahramanlar A.A.; Aksoy M.; Ince I.; Dostbil A.; Karadeniz E.	The Comparison of Postoperative Analgesic Efficacy of Ultrasound-Guided Paravertebral Block and Mid-Point Transverse Process Pleura Block in Mastectomy Surgeries: A Randomized Study	2022	10.1080/08941939.2022.2098544	Full Text Not Available
Mohsin M.H.	Effect of erector spinae block and PECS block on quality of recovery and analgesia after	2022	10.4103/0019-5049.340720	Full Text Not Available

	modified radical mastectomy			
Premachandra A.; Wang X.; Saad M.; Moussawy S.; Rouzier R.; Latouche A.; Albi-Feldzer A.	Erector spinae plane block versus thoracic paravertebral block for the prevention of acute postsurgical pain in breast cancer surgery: A prospective observational study compared with a propensity score-matched historical cohort	2022	10.1371/journal.pone.0279648	Wrong outcome studied
Uribe A.A.; Weaver T.E.; Echeverria-Villalobos M.; Periel L.; Pasek J.; Fiorda-Diaz J.; Palettas M.; Skoracki R.J.; Poteet S.J.; Heard J.A.	Efficacy of PECS block in addition to multimodal analgesia for postoperative pain management in patients undergoing outpatient elective breast surgery: A retrospective study	2022	10.3389/fmed.2022.975080	Wrong patient population
Wu S.-L.; Yua D.-H.; He B.-H.	Effect of Different Doses of Dexmedetomidine Combined with Ropivacaine TTP-PECS under Ultrasound Guidance on Postoperative Analgesia and Early Rehabilitation after Modified Radical Mastectomy	2022	10.19526/j.cnki.1005-8915.20220412	No English Text Available
Holm U.H.U.; Andersen C.H.S.; Hansen C.K.; Tanggaard K.; Borglum J.; Nielsen M.V.	Ultrasound-guided multiple-injection costotransverse block for mastectomy and primary reconstructive surgery. A study protocol	2022	10.1111/aas.14018	Wrong study design
Qu L.; Wu X.	Clinical Value of Total Intravenous Anesthesia with Sufentanil and	2022	10.1155/2022/7294358	Wrong outcome studied

	Propofol in Radical Mastectomy			
Kumar M.M.; Cheran; Kamaludeen	DETAILED STUDY OF PARAVERTEBRAL BLOCK ANAESTHETIC MANAGEMENT IN PATIENTS WITH CARCINOMA BREAST FOR MODIFIED RADICAL MASTECTOMY	2022	Not available	Full Text Not Available
Karoo K.; Kumar M.; Sinha M.; Nilima N.	A randomised prospective single-blind pilot study to compare the analgesic efficacy of thoracic epidural block and erector spinae plane block in breast cancer surgery	2022	10.4103/ija.ija_982_21	Wrong intervention
Liu H.-X.; Li S.-M.; Yang S.-G.; Lei F.-R.	A Clinical Study of Lidocaine Combined with Sufentanil for Analgesia in Post-Mastectomy Patients	2021	10.19526/j.cnki.1005-8915.20210515	No English Text Available
Aboalsoud R.A.H.E.-D.; Arida E.A.M.; Sabry L.A.A.; Elmolla A.F.; Mohammad Ghoneim H.E.-D.	The effect of opioid free versus opioid based anaesthesia on breast cancer pain score and immune response	2021	10.1080/11101849.2021.1983366	Wrong route of administration
Buzney C.D.; Lin L.Z.; Chatterjee A.; Gallagher S.W.; Quraishi S.A.; Drzymalski D.M.	Association between Paravertebral Block and Pain Score at the Time of Hospital Discharge in Oncoplastic Breast Surgery: A Retrospective Cohort Study	2021	10.1097/PRS.0000000000007942	Wrong intervention
Guan L.; Yang J.; Ding Z.; Cheng Z.; Sun Q.; Wang C.	Effects of modified thoracic nerve block on postoperative analgesia and early recovery of breast cancer patients	2021	10.3760/cma.j.cn115355-20210306-00117	Full Text Not Available

	after modified radical mastectomy			
Thiagarajan P.; Thota R.; Divatia J.	Efficacy of ultrasound-guided erector spinae plane block following breast surgery-A double-blinded randomised, controlled study	2021	10.4103/ija.IJA_1426_20	Wrong intervention
Santonastaso D.P.; de Chiara A.; Russo E.; Gamberini E.; Lucchi L.; Sibilio A.; Bagaphou C.; Zani G.; Righetti R.; Rispoli M.; Fusari M.; Agnoletti V.	A possible future for anaesthesia in breast surgery: thoracic paravertebral block and awake surgery. A prospective observational study	2021	10.1177/0300891620951626	Wrong outcome studied
Wu L.; Xi C.; Yin Y.; Lei G.; Wang Y.; Du Y.; Wei Z.; Hu C.; Wang G.	Comparison of the post-operative analgesic effect of ultrasound-guided serratus anterior plane block combined with pectoral nerves block and thoracic paravertebral block in radical mastectomy	2021	10.3760/cma.j.cn112137-20210314-00630	No English Text Available
Morin C.; Patel Y.; Javid M.; Tevis S.E.; Fortes T.; Flom P.; Andaz C.; Manasseh D.-M.; Borgen P.; Rojas K.E.	Opioid-Sparing Multimodal Analgesia Protocol for Lumpectomy Patients Results in Superior Postoperative Pain Control	2021	10.1245/s10434-021-09963-3	Wrong intervention
Omara A.F.; Ahmed S.A.; Abusabaa M.M.A.	Role of ultralow dose of naloxone as an adjuvant to fentanyl-bupivacaine in thoracic paravertebral block analgesia after modified radical mastectomy: Randomized controlled trial	2021	10.5055/JOM.2021.0672	Full Text Not Available

Abraham A.; Mehta P.	Comparing the efficacy and safety of usg guided modified pectoral block vs. erector spinae block for postoperative pain management in patients undergoing modified radical mastectomy	2021	10.1136/rapm-2021-ESRA.216	Full Text Not Available
Kaniyil S.	Comparison of effects of intraoperative infusion of low dose ketamine versus lignocaine in post operative pain management in patients undergoing breast cancer surgery	2021	Not available	Full Text Not Available
Uribe A.A.; Periel L.; Pasek J.; Echeverria-Villalobos M.; Fiorda-Diaz J.; Skoracki R.J.; Poteet S.J.; Palettas M.; Mohan S.; Weaver T.; Heard J.A.	The Efficacy of PECs Block in Addition to Multimodal Analgesia in Reducing Perioperative Opioid Consumption among Patients Undergoing Elective Breast Surgery: A Retrospective Study	2021	10.1213/01.ane.0000803544.47940.c7	Wrong patient population
Abd El-Rahman Abd El-Megeed M.; Hassan A.E.M.; Ashour T.M.A.; Youssef A.M.A.	Comparative Study between the Effect of Ultrasound Guided Pectoral Nerve Block (PEC 1) versus Serratus Anterior Plane Block (SAPB) For Postoperative Analgesia in Modified Radical Mastectomy	2021	10.1093/qjmed/hcab086.061	Full Text Not Available
El-Khattab S.O.; Taeimah M.O.; Seif M.M.E.	Efficacy of combined ultrasound guided Pectoral Nerve Block (PECS I block and PECS II block) using Bupivacaine with or without Magnesium Sulfate in modified	2021	10.1093/qjmed/hcab086.051	Full Text Not Available

	radical mastectomy under general anathesia			
Goel A.; Palta S.; Saroa R.; Saxena P.	Efficacy of serratus anterior muscle block as a part of multimodal analgesic regimen in patients undergoing modified radical mastectomy	2020	10.4038/slja.v28i2.8547	Before 2021
Rashwan D.A.E.K.; Mohammed A.R.; Rashwan S.A.K.; El Basset A.S.A.; Nafady H.A.	Efficacy of serratus anterior plane block using bupivacaine/ magnesium sulfate versus bupivacaine/ nalbuphine for mastectomy: A randomized, double-blinded comparative study	2020	10.5812/aapm.103141	Before 2021
Kumar V.; Sirohiya P.; Gupta N.; Bharati S.; Garg R.; Mishra S.	Effect of adding dexamethasone to ropivacaine for ultrasound-guided serratus anterior plane block in patients undergoing modified radical mastectomy: A preliminary trial	2020	10.4103/ija.IJA_261_20	Before 2021
Shah S.; Chawla R.; Pahade A.; Mittal A.; Bhargava A.; Kumar R.	Comparison of pectoralis plane blocks with ketamine-dexmedetomidine adjuncts and opioid-based general anaesthesia in patients undergoing modified radical mastectomy	2020	10.4103/ija.IJA_8_20	Before 2021
He W.; Wu Z.; Zu L.; Sun H.; Yang X.	Application of erector spinae plane block guided by ultrasound for postoperative analgesia in breast cancer surgery: A randomized controlled trial	2020	10.1002/cac2.12013	Before 2021

Park J.-W.; Kim J.H.; Woo K.-J.	Intraoperative Intercostal Nerve Block for Postoperative Pain Control in Pre-Pectoral versus Subpectoral Direct-to-Implant Breast Reconstruction: A Retrospective Study	2020	10.3390/medicina56070325	Before 2021
Grasso A.; Orsaria P.; Costa F.; D'avino V.; Caredda E.; Hazboun A.; Carino R.; Pascarella G.; Altomare M.; Buonomo O.C.; Agro F.E.; Altomare V.	Ultrasound-guided interfascial plane blocks for non-anesthesiologists in breast cancer surgery: Functional outcomes and benefits	2020	10.21873/anticanres.14185	Before 2021
Huang L.; Zheng L.; Wu B.; Chen Z.; Chen J.; Xu X.; Shi K.	Effects of ropivacaine concentration on analgesia after ultrasound-guided serratus anterior plane block: A randomized double-blind trial	2020	10.2147/JPR.S229523	Wrong patient population
Moustafa M.; Alabd A.; Ahmed A.; Deghidy E.	Erector spinae versus paravertebral plane blocks in modified radical mastectomy: Randomised comparative study of the technique success rate among novice anaesthesiologists	2020	10.4103/ija.IJA_536_19	Before 2021
Martsiniv V.V.; Loskutov O.A.; Strokan A.M.; Bondar M.V.	Efficacy of pectoral nerve block type II versus thoracic paravertebral block for analgesia in breast cancer surgery	2020	Not available	Before 2021
Elsabeeny W.Y.; Shehab N.N.; Wadod M.A.; Elkady M.A.	Perioperative analgesic modalities for breast cancer surgeries: A prospective randomized controlled trial	2020	10.2147/JPR.S274808	Before 2021

Seelam S.; Nair A.; Christopher A.; Upputuri O.; Naik V.; Rayani B.	Efficacy of single-shot ultrasound-guided erector spinae plane block for postoperative analgesia after mastectomy: A randomized controlled study	2020	10.4103/sja.SJA_260_19	Before 2021
Abdelzaam E.M.; Abd Alazeem E.S.	Efficacy of dexmedetomidine as an adjuvant to bupivacaine in the ultrasound-guided serratus anterior plane block for postmastectomy analgesia	2020	10.1080/11101849.2020.1854151	Before 2021
S.B.; Aboeleuon E.	Analgesic effect of morphine added to bupivacaine in serratus anterior plane block following modified radical mastectomy. Only a local effect? randomized clinical trial El Sherif F.A.; El-Rahman A.M.A.; Othman A.H.; Shouman S.A.; Omran M.M.; Hassan N.A.; Hassan	2020	10.2147/JPR.S236336	Wrong outcome studied
Bakeer A.H.; Kamel K.M.; Galil A.S.A.; Ghoneim A.A.; Soud A.H.A.; Hassan M.E.	Modified pectoral nerve block versus serratus block for analgesia following modified radical mastectomy: A randomized controlled trial	2020	10.2147/JPR.S252539	Before 2021
Deng W.; Fu D.; He L.	Evaluation of pectoral nerve block in modified radical mastectomy: Comparison of three concentrations of ropivacaine	2020	10.2147/CIA.S251613	Before 2021
Aoyama Y.; Sakura S.; Tsuchiya R.;	Erector spinae plane block and paravertebral	2020	10.2147/JPR.S265015	Before 2021

Wittayapairoj A.; Saito Y.	block for breast surgery: A retrospective propensity-matched noninferiority trial			
Sharma S.; Arora S.; Jafra A.; Singh G.	Efficacy of erector spinae plane block for postoperative analgesia in total mastectomy and axillary clearance: A randomized controlled trial	2020	10.4103/sja.SJA_625_19	Before 2021
Kaur U.; Shamshery C.; Agarwal A.; Prakash N.; Valiveru R.C.; Mishra P.	Evaluation of postoperative pain in patients undergoing modified radical mastectomy with pectoralis or serratus-intercostal fascial plane blocks	2020	10.4097/kja.20159	Before 2021
Gayraud G.; Le Graverend S.; Beguinot M.; Pereira B.; Duale C.	Analgesic and opioid-sparing effects of single-shot preoperative paravertebral block for radical mastectomy with immediate reconstruction: A retrospective study with propensity-adjusted analysis	2020	10.1016/j.suronc.2020.03.006	Before 2021
Mendonca F.T.; Pellizzaro D.; Grossi B.J.; Calvano L.A.; De Carvalho L.S.F.; Sposito A.C.	Synergistic effect of the association between lidocaine and magnesium sulfate on peri-operative pain after mastectomy: A randomised, double-blind trial	2020	10.1097/EJA.0000000000001153	Before 2021
Lakshmi K.S.; Ramya Parameswari A.; Prabhu C.R.; Udayakumar P.	Comparison of general anesthesia with ultrasound guided pecs block and serratus anterior plane block using bupivacaine and dexmedetomidine versus general	2020	10.4103/0019-5049.277898	Before 2021

	anesthesia alone in modified radical mastectomy patients			
Kennard K.; Buckley M.; Meske S.; Khojasteh S.; Frazier T.; Larson S.; Sabol J.; Ciocca R.; Carp N.	Use of pecs II block in partial mastectomy for improving postoperative pain control and mitigating narcotic use-initial results from a randomized control trial	2020	10.1245/s10434-020-08630-3	Before 2021
Lee C.; Seering M.; Keith J.; Erdahl L.; Sugg S.; Weigel R.; Lizarraga I.	A feasibility study of intraoperative surgeon-performed PECS I/II blocks for mastectomy with immediate reconstruction	2020	10.1245/s10434-020-08630-3	Before 2021
Kamel A.M.A.; Abosleimah A.A.A.; Elgharabawy W.; Elemary Y.I.	The effect of pectoralis major block type 1 (PECS 1) on intraoperative general anesthetic requirements and postoperative analgesic requirements for breast cancer patients undergoing mastectomy	2020	10.1093/qjmed/hcaa039.030	Before 2021
Ringqvist J.R.; Gasanova I.; Stewart J.; Alexander J.	Erector Spinae Block Versus Paravertebral Block for Pain Management After Bilateral Mastectomy	2020	10.1213/01.ane.0000721548.94880.1a	Full Text Not Available
Singh U.; Karthik G.S.; Rangalakshmi S.; Sudheer R.	Comparison between ropivacaine and ropivacaine with dexmedetomidine via ultrasound guided erector spinae block for post operative analgesia in patients undergoing modified radical mastectomies: A prospective randomized study	2020	10.4103/0019-5049.277903	Full Text Not Available

Wrubel E.; Wright G.P.; Jaklitsch P.; Miller M.; Carroll J.; Dull M.; Paulson J.; Melnik M.	Paravertebral versus pectoral nerve block for analgesia following breast surgery: A randomized controlled trial	2020	10.1245/s10434-020-08278-z	Before 2021
Saravanan R.; Venkatraman R.; Yogalakshmi K.; Karthik K.	A prospective randomized control study on evaluation of effectiveness of serratus anterior plane block for post-operative analgesia in modified radical mastectomy surgeries	2020	10.4103/0019-5049.277908	Full Text Not Available
Kuibin X.; Xiaobei Z.; Ruichen S.; Peng Z.; Hongwei Z.; Kaiyuan W.	Effect of type II thoracic nerve block on perioperative stress response in patients undergoing modified radical mastectomy for breast cancer	2020	10.3969/j.issn.1000-8179.2020.18.923	No English Text Available
El Ghamry M.; Amer A.	Role of erector spinae plane block versus paravertebral block in pain control after modified radical mastectomy. A prospective randomised trial	2019	10.4103/ija.IJA_310_19	Before 2021
Fattah M.E.A.; Taha S.N.; Gaber S.M.H.; Elramley M.A.; Fathy M.	Comparative study to show the efficacy of throacic paravertebral block, with and without dexmedetomidine, versus general anesthesia in modified radical mastectomies	2019	Not available	Before 2021
Tiburzi C.; Cerotto V.; Gargaglia E.; Carli L.; Gori F.	Pectoral nerve block II with programmed intermittent bolus of local anesthetic and postoperative pain relief in breast surgery	2019	10.23736/S0375-9393.18.13027-6	Wrong study design

Wang H.J.; Liu Y.; Ge W.W.; Bian L.D.; Pu L.F.; Jiang Y.; Zhu G.F.; Jin X.W.; Li J.	Comparison of ultrasound-guided serratus anterior plane block and erector spinae plane blockperioperatively in radical mastectomy	2019	10.3760/cma.j.issn.0376-2491.2019.23.012	No English Text Available
Sinha C.; Kumar A.; Prasad C.; Singh P.; Priya D.	Pectoral nerve versus erector spinae block for breast surgeries: A randomised controlled trial	2019	10.4103/ija.IJA_163_19	Before 2021
Santonastaso D.P.; de Chiara A.; Russo E.; Musetti G.; Lucchi L.; Sibilio A.; Maltoni R.; Gamberini E.; Fusari M.; Fusari V.A.	Single shot ultrasound-guided thoracic paravertebral block for opioid-free radical mastectomy: A prospective observational study	2019	10.2147/JPR.S211944	Before 2021
Yayik A.M.; Ahiskalioglu A.; Sulak M.M.; Ahiskalioglu E.O.; Karakaya M.A.; Celik E.C.; Karadeniz E.; Alici H.A.	The effect of ultrasound-guided superficial serratus plane block for acute postmastectomy pain after modified radical mastectomy and axillary lymph node dissection: A randomized controlled study	2019	10.5222/jarss.2019.85570	No English Text Available
Bakeer A.H.; Abdallah N.M.; Kamel M.A.; Abbas D.N.; Ragab A.S.	The impact of intravenous dexamethasone on the efficacy and duration of analgesia of paravertebral block in breast cancer surgery: A randomized controlled trial	2019	10.2147/JPR.S181788	Before 2021
Tripathy S.; Mandal I.; Rao P.; Panda A.; Mishra T.; Kar M.	Opioid-free anesthesia for breast cancer surgery: A comparison of ultrasound guided paravertebral and pectoral nerve blocks.	2019	10.4103/joacp.JOACP_364_18	Before 2021

	A randomized controlled trial			
Najeeb H.N.; Mehdi S.R.; Siddiqui A.M.; Batool S.K.	Pectoral Nerves I, II and Serratus Plane Blocks in Multimodal Analgesia for Mastectomy: A Randomised Clinical Trial	2019	10.29271/jcpsp.2019.10.910	Before 2021
Singh S.; Kumar G.; Akhileshwar A.	Ultrasound-guided erector spinae plane block for postoperative analgesia in modified radical mastectomy: A randomised control study	2019	10.4103/ija.ija_758_18	Before 2021
Kamal S.M.; Ahmed B.M.; Refaat A.	Effect of ketamine-bupivacaine combination in multilevel ultrasoundassisted thoracic paravertebral block on acute and chronic post-mastectomy pain	2019	10.1080/11101849.2019.1589715	Before 2021
Afonso A.L.; Pereira L.; Correia J.; Ferreira M.; Lareiro N.; Paulo J.F.; Cardoso G.; Antunes L.B.; Valente R.	Efficacy of ultrasound-guided transversus abdominis plane block in breast reconstruction surgery with abdominal myocutaneous flap	2019	10.4038/slja.v27i1.8396	Before 2021
Siddeshwara A.; Singariya G.; Kamal M.; Kumari K.; Seervi S.; Kumar R.	Comparison of efficacy of ultrasound-guided pectoral nerve block versus thoracic paravertebral block using levobupivacaine and dexamethasone for postoperative analgesia after modified radical mastectomy: A randomized controlled trial	2019	10.4103/sja.SJA_25_19	Before 2021

Yao Y.; Li J.; Hu H.; Xu T.; Chen Y.	Ultrasound-guided serratus plane block enhances pain relief and quality of recovery after breast cancer surgery: A randomised controlled trial	2019	10.1097/EJA.0000000000001004	Before 2021
Khemka R.; Chakrborty A.; Agrawal S.; Ahmed R.	Is COMBIPECS the answer to perioperative analgesia for breast surgery? A double blinded randomized controlled trial	2019	10.4103/ija.IJA_222_19	Wrong patient population
Ding W.; Jia M.; Qiao L.; Huang C.; Wang S.	Application of Ultrasound-Guided Thoracic Paravertebral Nerve Block in Radical Mastectomy	2019	10.3969/j.issn.2095-1264.2019.04.23	Before 2021
Kubulus C.; Gyenge M.; Keller O.; Volk T.	Pecs II-block in breast cancer surgery: A pilot study on clinical routine procedures	2019	10.19224/ai2019.301	No English Text Available
Senapathi T.G.A.; Widnyana I.M.G.; Aribawa I.G.N.M.; Jaya A.A.G.P.S.; Junaedi I.M.D.	Combined ultrasound-guided Pecs II block and general anesthesia are effective for reducing pain from modified radical mastectomy	2019	10.2147/JPR.S197669	Before 2021
John R.; Kaplan J.; Decker M.	Adopting a Multimodal Approach to Breast Cancer Surgery Analgesia: Shift in Departmental Practice & Overall Decrease in Perioperative Opioid Requirements, a Retrospective Study	2019	10.1016/j.jpain.2019.01.057	Before 2021
Avila J.; Kim S.; Macres S.; Zhou J.	Preoperative pectoralis plane nerve blocks and postoperative opioid consumption in a usa academic institution: A retrospective review	2019	10.1136/jim-2018-000939.150	Full Text Not Available

Sinha C.; Kumar A.; Kumari P.	Deep versus superficial erector spinae block: A pilot study to compare the efficacy of two techniques	2019	10.1136/rapm-2019-ESRAABS2019.398	Before 2021
Siegel E.; Tran H.; Mirocha J.; Anand K.; Chung A.; Kim E.; Ray E.; Slate K.; Giuliano A.; Amersi F.	Intraoperative liposomal bupivacaine intercostal blocks vs paravertebral blocks for pain control in patients undergoing mastectomy with implant-based reconstruction	2019	10.1245/s10434-019-07407-7	Before 2021
Smits R.; Fenten M.; Filippini-De Moor G.; Van Geffen G.J.	Paravertebral block versus erector spinae plane block in patients undergoing breast cancer surgery: A feasibility study	2019	10.1136/rapm-2019-ESRAABS2019.502	Before 2021
Abe H.; Horiuchi T.; Teramoto A.; Tanaka Y.; Takei Y.; Nagahata T.	Thoracic interfascial nerve blocks versus paravertebral block for improving quality of recovery after breast cancer surgery: A randomized, double-blind, non-inferiority trial	2019	10.1158/15387445.SABCS18-OT2-01-02	Full Text Not Available
Maesaka J.; Matsumoto D.; Araujo S.	Regional anesthetic block PECS II: Applicability of an intraoperative technique in breast cancer surgery patients in Brazil	2019	10.1245/s10434-019-07407-7	Before 2021
Kakkar S.; Aggarwal R.; Kumar Goel A.	Effect of direct PEC I & PEC II block in patients undergoing mastectomy: a prospective, double blind, randomized, placebo, controlled study	2019	10.1016/S0960-9776	Before 2021

Aljabari A.; Baeriswyl M.; El-Boghdadly K.; Albrecht E.	The analgesic efficacy of PECS2 block following radical mastectomy: A randomised, controlled, triple-blinded trial	2019	10.1136/rapm-2019-ESRAABS2019.180	Full Text Not Available
Pandey R.K.; Neethu M.; Punj J.; Darlong V.; Singh P.M.; Sinha R.; Garg R.	Analgesic efficacy of combined Pectoral nerve blocks (PECS i & II) in surgeries for Breast carcinoma	2019	10.1080/00325481.2019.1655695	Full Text Not Available
Bozzuto L.; Bartholomew A.; Sosin M.; Gulla A.; Myers J.; Tousimis E.	Opioid-free anesthesia for patients undergoing mastectomy with reconstruction	2018	10.1245/s10434-018-6534-2	Before 2021
Matsumoto M.; Flores E.M.; Kimachi P.P.; Gouveia F.V.; Kuroki M.A.; Barros A.C.S.D.; Sampaio M.M.C.; Andrade F.E.M.; Valverde J.; Abrantes E.F.; Simoes C.M.; Pagano R.L.; Martinez R.C.R.	Benefits in radical mastectomy protocol: a randomized trial evaluating the use of regional anesthesia	2018	10.1038/s41598-018-26273-z	Before 2021
Mostafa M.O.; Botros J.M.; Khaleel A.M.S.	Effect of dexmedetomidine versus nalbuphine as an adjuvant on paravertebral block to manage postoperative pain after mastectomies	2018	10.5812/aapm.13308	Before 2021
Tripathy S.; Rath S.; Agrawal S.; Rao P.B.; Panda A.; Mishra T.S.; Nayak S.	Opioid-free anesthesia for breast cancer surgery: An observational study	2018	10.4103/joacp.JOACP_143_17	Before 2021
Abdallah F.W.; Cil T.; MacLean D.; Madjdpour C.; Escallon J.; Semple J.; Brull R.	Too Deep or Not Too Deep?: A Propensity-Matched Comparison of the Analgesic Effects of a Superficial Versus Deep Serratus Fascial Plane Block for	2018	10.1097/AAP.0000000000000768	Full Text Not Available

	Ambulatory Breast Cancer Surgery			
Kim D.-H.; Kim S.; Kim C.S.; Lee S.; Lee I.-G.; Kim H.J.; Lee J.-H.; Jeong S.-M.; Choi K.T.	Efficacy of Pectoral Nerve Block Type II for Breast-Conserving Surgery and Sentinel Lymph Node Biopsy: A Prospective Randomized Controlled Study	2018	10.1155/2018/4315931	Before 2021
El Mourad M.B.; Amer A.F.	Effects of adding dexamethasone or ketamine to bupivacaine for ultrasound-guided thoracic paravertebral block in patients undergoing modified radical mastectomy: A prospective randomized controlled study	2018	10.4103/ija.IJA_791_17	Before 2021
Nguyen B.; Barta R.; Heinrich C.	Toradol use in breast reconstruction: Risk of hematoma and benefit of post-operative pain control	2018	10.1245/s10434-018-6534-2	Before 2021
Kamiya Y.; Hasegawa M.; Yoshida T.; Takamatsu M.; Koyama Y.	Impact of pectoral nerve block on postoperative pain and quality of recovery in patients undergoing breast cancer surgery: A randomised controlled trial	2018	10.1097/EJA.0000000000000762	Before 2021
Waddington H.; Wilkes R.	THE EFFECTS OF INTERCOSTAL NERVE BLOCKS ON POST-OPERATIVE PAIN OUTCOMES FOLLOWING MASTECTOMY AND WIDE LOCAL EXCISION	2018	10.1016/j.ijsu.2018.05.059	Before 2021

Thomas M.; Philip F.A.; Mathew A.P.; Jagathnath Krishna K.M.	Intraoperative pectoral nerve block (Pec) for breast cancer surgery: A randomized controlled trial	2018	10.4103/joacp.JOACP_191_17	Before 2021
Roybasunia S.; Das A.; Mitra T.; Mayur N.; Biswas H.; Mukherjee A.; Bhattacharyya C.; Mandal S.	Role of magnesium as analgesic sparing adjuvant to ropivacaine in thoracic paravertebral block for breast cancer surgery: A prospective, double-blinded randomised controlled study	2018	10.7860/JCDR/2018/38012.12348	Before 2021
Megha T.; Hegde H.V.; Rao P.R.	Paravertebral block with morphine or dexmedetomidine as adjuvant to bupivacaine for post-operative analgesia in modified radical mastectomy: A prospective, randomised, double-blind study	2018	10.4103/ija.IJA_79_18	Before 2021
De Oliveira G.S.; Rodes M.E.; Bialek J.; Kendall M.C.; McCarthy R.J.	Single dose systemic acetaminophen to improve patient reported quality of recovery after ambulatory segmental mastectomy: A prospective, randomized, double-blinded, placebo controlled, clinical trial	2018	10.1111/tbj.12950	Before 2021
Kumar S.; Goel D.; Sharma S.K.; Ahmad S.; Dwivedi P.; Deo N.; Rani R.	A randomised controlled study of the post-operative analgesic efficacy of ultrasound-guided pectoral nerve block in the first 24 h after modified radical mastectomy	2018	10.4103/ija.IJA_523_17	Before 2021

Murata H.; Hida K.; Hara T.	Analgesic efficacy of combined single shot pectoral nerve block ii and continuous pectoral nerve block i for immediate tissue expander placemntafter mastectomy	2018	Not available	No English Text Available
Tiwari S.; Sharma K.; Sharma S.	Randomized control study to evaluate effectiveness of pectoral nerve block for post operative analgesia in patients undergoing mastectomy	2018	Not available	Before 2021
Lan F.; Yin C.; Wang T.	Pectoral nerves block can reduce opioids consumption after breast cancer surgery in elderly patients in postoperative 24 hours	2018	Not available	Before 2021
Bell A.; Ali O.; Aggarwal A.; Blundell M.; Townend A.; Aspinall S.	The role of pectoral nerve (PECS) blocks in a day case mastectomy service	2018	Not available	Before 2021
Batool S.K.	Pectoral nerves i and II and serratus plane blocks in multimodal analgesia for mastectomies: A randomized clinical trial	2018	Not available	Before 2021
Syal K.; Chandel A.	Comparison of the post-operative analgesic effect of paravertebral block, pectoral nerve block and local infiltration in patients undergoing modified radical mastectomy: A randomised double-blind trial	2017	10.4103/ija.IJA_81_17	Before 2021
Jin L.-J.; Wen L.-Y.; Zhang Y.-L.; Li G.; Sun P.; Zhou X.	Thoracic paravertebral regional anesthesia for pain relief in patients	2017	10.1097/MD.0000000000008107	Before 2021

	with breast cancer surgery			
Chang J.; Wang X.; Xin D.; Sun Q.; Jiang M.; Ma J.	Intraoperative and postoperative infusion of dexmedetomidine combined with butorphanol for intravenous patient-controlled analgesia after radical mastectomy: A double-blind, randomized clinical trial	2017	Not available	Before 2021
Abdallah F.W.; MacLean D.; Madjdpour C.; Cil T.; Bhatia A.; Brull R.	Pectoralis and serratus fascial plane blocks each provide early analgesic benefits following ambulatory breast cancer surgery: A retrospective propensity-matched cohort study	2017	10.1213/ANE.0000000000001975	Before 2021
Ueshima H.; Otake H.	Addition of transversus thoracic muscle plane block to pectoral nerves block provides more effective perioperative pain relief than pectoral nerves block alone for breast cancer surgery	2017	10.1093/bja/aew449	Study retracted
Gupta K.; Srikanth K.; Girdhar K.K.; Chan V.	Analgesic efficacy of ultrasound-guided paravertebral block versus serratus plane block for modified radical mastectomy: A randomised, controlled trial	2017	10.4103/ija.IJA_62_17	Before 2021
Fan W.; Xue H.; Sun Y.; Yang H.; Zhang J.; Li G.; Zheng Y.; Liu Y.	Dexmedetomidine improves postoperative patient-controlled analgesia following radical mastectomy	2017	10.3389/fphar.2017.00250	Before 2021
Odom E.B.; Mehta N.; Parikh R.P.; Guffey R.; Myckatyn T.M.	Paravertebral Blocks Reduce Narcotic Use Without Affecting	2017	10.1245/s10434-017-6007-z	Before 2021

	Perfusion in Patients Undergoing Autologous Breast Reconstruction			
Pushparajan H.K.; Punj J.; Pandey R.; Darlong V.; Srivastava A.; Batra R.K.; Bhan A.	Addition of fentanyl to ropivacaine infusion in continuous thoracic paravertebral infusion does not improve its analgesic effect following modified radical mastectomy: A randomized controlled trial	2017	Not available	Wrong intervention
Perez Poquet M.; Celdran Clusella P.; Alcantara Pinillos P.; Perez Torrento C.	Cutaneous branches of intercostal nerves block associated with pectoral nerve block in mastectomies: An effective technique for perioperative pain control	2017	10.1097/AAP.0000000000000656	Study retracted
Wong I.M.J.; Lim Y.C.; Chow S.Y.	Paravertebral block vs pecs block for patients undergoing mastectomy-are they equally efficacious and safe?	2017	10.1097/AAP.0000000000000656	Study retracted
Fusco P.; Di Carlo S.; Luciani A.; Petrucci E.; Degan G.; Barattelli E.; Marinangeli F.	Anesthetic use of pecs II block and parasternal block in radical mastectomywith prosthesis implant	2017	10.1097/AAP.0000000000000656	Study retracted
Young B.; Connolly D.; Ferryman J.; West S.; Ng S.	Pectoral nerves block (pecs II) vs. paravertebral block for mastectomy surgery	2017	10.1097/AAP.0000000000000656	Study retracted
Das D.; Emamdee R.; Nair R.	The morphine sparing effect of truncal regional blocks in free flap reconstructive surgery	2017	10.1097/AAP.0000000000000656	Study retracted
Schreiber K.; Williams-Vafai A.; Chowdhury A.; Ende	RCT of US-Paravertebral vs. US-Proximal Intercostal	2017	Not available	Before 2021

D.; Zeballos J.; Janfaza D.; Vlassakov K.	Block in Mastectomy Patients			
Hoflack S.; Al Tmimi L.; Coppens S.; Hanssens K.; Billet B.; Nagels W.; Spoelders K.	Pectoral nerve block for mastectomies: Worth the effort?	2017	10.1097/AAP.0000000000000656	Study retracted
Mohta M.; Kalra B.; Sethi A.K.; Kaur N.	Efficacy of dexmedetomidine as an adjuvant in paravertebral block in breast cancer surgery	2016	10.1007/s00540-015-2123-8	Before 2021
Sato M.; Shirakami G.; Fukuda K.	Comparison of general anesthesia and monitored anesthesia care in patients undergoing breast cancer surgery using a combination of ultrasound-guided thoracic paravertebral block and local infiltration anesthesia: a retrospective study	2016	10.1007/s00540-015-2111-z	Before 2021
Parikh R.P.; Sharma K.; Guffey R.; Myckatyn T.M.	Preoperative Paravertebral Block Improves Postoperative Pain Control and Reduces Hospital Length of Stay in Patients Undergoing Autologous Breast Reconstruction after Mastectomy for Breast Cancer	2016	10.1245/s10434-016-5471-1	Before 2021
Fallatah S.; Mousa W.	Multiple levels paravertebral block versus morphine patient-controlled analgesia for postoperative analgesia following breast cancer surgery with unilateral lumpectomy, and axillary lymph nodes dissection	2016	10.4103/1658-354X.169468	Before 2021

Nonaka T.; Hara M.; Miyamoto C.; Sugita M.; Yamamoto T.	Comparison of the analgesic effect of intravenous acetaminophen with that of flurbiprofen axetil on post-breast surgery pain: a randomized controlled trial	2016	10.1007/s00540-016-2150-0	Before 2021
Abdelsattar J.M.; Boughey J.C.; Fahy A.S.; Jakub J.W.; Farley D.R.; Hieken T.J.; Degnim A.C.; Goede W.; Mohan A.T.; Harmsen W.S.; Niesen A.D.; Tran N.V.; Bakri K.; Jacobson S.R.; Lemaine V.; Saint-Cyr M.	Comparative Study of Liposomal Bupivacaine Versus Paravertebral Block for Pain Control Following Mastectomy with Immediate Tissue Expander Reconstruction	2016	10.1245/s10434-015-4833-4	Before 2021
Li N.-L.; Yu B.-L.; Hung C.-F.	Paravertebral block plus thoracic wall block versus paravertebral block alone for analgesia of modified radical mastectomy: A retrospective cohort study	2016	10.1371/journal.pone.0166227	Wrong outcome studied
Lykoudi E.; Delistathis G.; Stavropoulou E.; Tselempis E.; Oikonomou E.; Mpournavea S.; Mastrokosta E.	Pectoral nerves I and II blocks for breast cancer surgery	2016	10.1097/AAP.0000000000000469	Before 2021
Chatzidimitriou C.; Bugelli G.; Satpathy A.	PECS 2 block for peri-operative analgesia in patients undergoing breast surgery	2016	10.1016/j.ejso.2016.02.104	Full Text Not Available
Murouchi T.; Yamakage M.	Retrolaminar block: The analgesic efficacy and safety evaluation compared to paravertebral block	2016	10.1097/AAP.0000000000000469	Before 2021

Pakkar-Hull A.; Kant A.; Lain H.	Pecs block for mastectomy: Does it make a difference to hospital stay? A retrospective studyata district general hospital	2016	10.1097/AAP.0000000000000469	Before 2021
Biswas A.; Madjdpour C.; Abdallah F.; Oldfield S.; Brull R.	The effect of the serratus block on analgesia after breast surgery-a randomized controlled doubleblinded study	2016	Not available	Before 2021
Pushparaj H.; Punj J.; Pandey R.K.; Darlong V.; Batra R.K.	Continuous thoracic paravertebral infusion in modified radical mastectomy: Randomized, prospective, double blinded study to compare efficacy of ropivacaine with and without fentanyl	2016	10.1213/01.ane.0000492892.46928.35	Before 2021
Jones A.; Horsnell J.; Kum F.; Rose L.; Foxall G.; Irvine T.	Post-operative pain in breast patients: Use of the pectoral nerve II blocks	2016	10.1016/j.ejso.2016.06.080	Before 2021
Kanitkar R.; Mane A.; Agashe A.; Kulkarni M.; Deshmukh S.	Modified pectoral nerves block for postoperative analgesia after modified radical mastectomy: A comparative study	2016	10.1158/1538-7445.SABCS15-P2-12-13	Before 2021
Giordano C.; Scimia P.; Basso Ricci E.; Fusco P.; Mondello E.; Danelli G.	Pecs block vs thoracic paravertebral block for the management of postoperative analgesia in major breast surgery: Preliminary findings	2016	10.1097/AAP.0000000000000469	Before 2021
Goswami S.; Bhattacharya J.	PEC1 and PEC2 block under direct vision for postoperative analgesia for modified radical mastectomy-a randomized clinical trial	2016	10.1213/01.ane.0000492872.96241.83	Full Text Not Available

Chan W.H.V.; Tey B.L.J.; Chan M.Y.P.; Tan E.Y.	A randomised controlled trial of thoracic paravertebral block for breast cancer surgery	2016	Not available	Before 2021
Thomas M.; Sudarsan A.	A double blind randomized control trial to study the efficacy of a single dose intravenous magnesium sulphate in preventing postoperative pain in patients undergoing mastectomy	2016	10.1213/01.ane.0000493007.14653.8f	Before 2021
Lou F.; Sun Z.; Huang N.; Hu Z.; Cao A.; Shen Z.; Shao Z.; Yu P.; Miao C.; Wu J.	Epidural Combined with General Anesthesia versus General Anesthesia Alone in Patients Undergoing Free Flap Breast Reconstruction	2016	10.1097/01.prs.0000479933.75887.82	Before 2021
Arora S.; Kasimahanti R.; Bhatia N.; Singh G.	Ultrasound guided single versus double level thoracic paravertebral block for postoperative analgesia in total mastectomy with axillary clearance	2016	Not available	Before 2021
Hironobu U.; Hiroshi O.	Combination of pectoral nerves block and transversus thoracic muscle plane block provide effective perioperative pain relief for breast cancer surgery-a randomized clinical trial	2016	10.1097/AAP.0000000000000469	Before 2021
Hegde H.V.; Rao P.R.	Morphine or dexmedetomidine as adjuvant to bupivacaine in paravertebral block for postoperative analgesia in modified radical mastectomy: A prospective	2016	10.1213/01.ane.0000492694.57711.95	Before 2021

	randomised double-blind study			
Bouzinac A.; Brenier G.; Dao M.; Delbos A.	Bilateral association of pecs I block and serratus plane block for postoperative analgesia after double modified radical mastectomy	2015	Not available	Full Text Not Available
Mahran E.; Hassan M.E.	Comparison of pregabalin versus ketamine in postoperative pain management in breast cancer surgery	2015	10.4103/1658-354X.154697	Wrong intervention
Hassan M.E.; Mahran E.	Effect of adding magnesium sulphate to bupivacaine on the clinical profile of ultrasound-guided thoracic paravertebral block in patients undergoing modified radical mastectomy	2015	10.1016/j.egja.2014.11.003	Before 2021
Couceiro T.C.M.; Lima L.C.; Burle L.M.C.; Valenca M.M.	Intravenous lidocaine for post-mastectomy pain treatment: Randomized, blind, placebo controlled clinical trial	2015	10.1016/j.bjan.2014.05.016	Before 2021
Hutchins J.; Barta R.; Zera R.; Choudry U.	The analgesic efficacy of paravertebral blocks with liposomcal bupivacaine for breast surgery: A retrospective cohort study	2015	10.1097/AAP.0000000000000308	Before 2021
Ardon A.; Warrick M.	Paravertebral block with ropivacaine 1% but not 0.5% impacts pain scores after mastectomy? Results of a pilot study	2015	Not available	Before 2021
Lam D.; Green J.; Henschke S.; Cameron J.; Hamilton S.; Van	Paravertebral block vs. sham in the setting of a multimodal analgesia regimen and total	2015	Not available	Full Text Not Available

Wiingaarden-Stephens M.; Tsui B.	intravenous anesthesia for mastectomy: A prospective, randomized, controlled trial			
Santambrogio S.; Rubino G.F.; Valsecchi M.; Ladiana N.; Fumagalli R.	Serratus plane block in breast surgery	2015	10.1097/AAP.0000000000000308	Before 2021
Rukewe A.; Fatiregun A.; Ademola A.F.; Ugheoke A.	Single-shot lamina technique of paravertebral block as an adjunct to general anesthesia for modified radical mastectomy	2015	10.4103/1119-3077.151805	Wrong study design
Shah A.; Rowlands M.; Krishnan N.; Patel A.; Ott-Young A.	Thoracic Intercostal Nerve Blocks Reduce Opioid Consumption and Length of Stay in Patients Undergoing Implant-Based Breast Reconstruction	2015	10.1097/PRS.0000000000001717	Before 2021
Abdallah F.W.; Morgan P.J.; Cil T.; McNaught A.; Escallon J.M.; Semple J.L.; Wu W.; Chan V.W.	Ultrasound-guided multilevel paravertebral blocks and total intravenous anesthesia improve the quality of recovery after ambulatory breast tumor resection	2014	10.1097/ALN.0000000436117.52143.bc	Before 2021
Wahba S.S.; Kamal S.M.	Thoracic paravertebral block versus pectoral nerve block for analgesia after breast surgery	2014	10.1016/j.egja.2013.10.006	Before 2021
Abbas D.; Pashandy G.N.	Modified pecs block as a part of multimodal peri-operative analgesia in surgery for cancer breast with axillary evacuation: A randomized clinical trial	2014	10.1111/papr.12201	Before 2021
Yilmaz O.; Saracoglu A.; Bezen O.; Sengul T.	Effects of thoracic paravertebral block on postoperative analgesia	2014	Not available	Before 2021

	in patients undergoing modified radical mastectomy			
Kaya M.; Oguz G.; Senel G.; Kadiogullari N.	Postoperative analgesia after modified radical mastectomy: The efficacy of interscalene brachial plexus block	2013	10.1007/s00540-013-1647-z	Before 2021
Coopey S.B.; Specht M.C.; Warren L.; Smith B.L.; Winograd J.M.; Fleischmann K.	Use of preoperative paravertebral block decreases length of stay in patients undergoing mastectomy plus immediate reconstruction	2013	10.1245/s10434-012-2678-7	Before 2021
Chu X.-Y.; Xia Y.-M.; Zhang F.-J.; Wu M.-M.	Effects of parecoxib sodium on analgesia after radical mastectomy for breast cancer	2013	10.3969/j.issn.1674-8115.2013.02.014	Before 2021
Abdallah F.W.; Morgan P.J.; Cil T.; McNaught A.; Escalon J.; Semple J.; Chan V.W.	Paravertebral blocks for ambulatory breast tumour resection: Effects of an inhalational gas-and opioid-free anesthetic on the quality of recovery. Randomized controlled trial	2013	Not available	Before 2021
Bhuvaneswari V.; Wig J.; Mathew P.J.; Singh G.	Post-operative pain and analgesic requirements after paravertebral block for mastectomy: A randomized controlled trial of different concentrations of bupivacaine and fentanyl	2012	10.4103/0019-5049.93341	Before 2021
Schroeder K.; Ford M.P.; Blake J.M.; Anderson B.M.; Donnelly M.J.	Impact of performing breast surgery with ultrasound guided paravertebral block with sedation versus general anesthesia	2012	Not available	Before 2021

Donnelly M.; Anderson B.; Ford M.; Blake J.; Broderick T.; Schroeder K.M.	Impact of local anesthetic choice on perioperative outcomes in breast surgery when a paravertebral block is used as the primary anesthetic	2012	Not available	Before 2021
Ayedi M.; Smaoui M.; Barkia R.; Ben Soltana H.; Chaabane K.; Guermazi M.; Kolsi K.	Interest of the paravertebral block for analgesia after breast cancer surgery	2012	Not available	Before 2021
Ayedi M.; Smaoui M.; Derbel A.; Akrout S.; Ben Soltana H.; Kolsi K.	Effectiveness of the paravertebral block for analgesia after breast cancer surgery	2012	Not available	Before 2021
Boughey J.C.; Goravanchi F.; Parris R.N.; Kee S.S.; Kowalski A.M.; Frenzel J.C.; Bedrosian I.; Meric-Bernstam F.; Hunt K.K.; Ames F.C.; Kuerer H.M.; Lucci A.	Prospective randomized trial of paravertebral block for patients undergoing breast cancer surgery	2009	10.1016/j.amjsurg.2008.11.043	Before 2021
Arunakul P.; Ruksa A.	General anesthesia with thoracic paravertebral block for modified radical mastectomy	2010	Not available	Before 2021
Aufforth R.; Jain J.; Morreale J.; Falk J.; Wesen C.	Paravertebral blocks in breast cancer surgery - Is there a difference in postoperative pain, nausea, and vomiting	2010	10.1016/S0748-7983	Before 2021
Belzarena S.D.	Comparative study between thoracic epidural block and general anesthesia for oncologic mastectomy	2008	10.1590/S0034-70942008000600001	Before 2021
Colombani S.; Kabbani Y.; Mathoulin-Pelissier S.; Gekiere J.-P.; Dixmerias F.; Monnin D.; Lakdja F.	Administration of ketamine during induction and maintenance of anaesthesia in postoperative pain	2008	10.1016/j.annfar.2007.11.025	Before 2021

	prevention. Clinical trial in oncology			
Legeby M.; Sandelin K.; Wickman M.; Olofsson C.	Analgesic efficacy of diclofenac in combination with morphine and paracetamol after mastectomy and immediate breast reconstruction	2005	10.1111/j.1399-6576.2005.00811.x	Before 2021
Zaleta Garcia E.; Alvarez Vega J.C.; Olguin Ramirez C.; Zinker Espino E.	A comparison of the technical difficulties with epidural thoracic as compared with lumbar epidural blockade for postoperative analgesia for radical mastectomy	1999	Not available	Before 2021
Greengrass R.; O'Brien F.; Lyerly K.; Hardman D.; Gleason D.; D'Ercole F.; Steele S.	Paravertebral block for breast cancer surgery	1996	10.1007/BF03013039	Before 2021
Atanassoff P.G.; Alon E.; Weiss B.M.	Intercostal nerve block for lumpectomy: Superior postoperative pain relief with bupivacaine	1994	10.1016/0952-8180	Full Text Not Available
Bosek V.; Smith D.B.; Cox C.	Ketorolac or fentanyl to supplement local anesthesia?	1992	10.1016/0952-8180	Before 2021
De Leon-Herrera, Esther I; Castellanos-Lopez, Marco A; Chavez-Macias, Veronica; Hernandez-Sierra, Juan F; Torres-Salazar, Quitzia L; Rios, Eloisa	Comparing the Analgesic Efficacy of the Serratus-Intercostal Plane Block With Conventional Pharmacological Treatment in Patients Following Radical Mastectomy.	2025	10.7759/cureus.91232	Wrong study design
Lewis, Holden; Evans, J Holt; Mullen, Michael; Gustetic, Andrew; Kim, Seiha; Lane, Miles; Jablonski, Rebecca	Regional Anesthesia With Pectoral Blocks as a Non-inferior Approach for Mastectomy Analgesia:	2024	10.7759/cureus.73086	Wrong outcome studied

	A Quality Improvement Study.			
Mensah, David K; deGraft-Johnson, Papa Kobina G; Darkwa, Ebenezer O; Akowuah, Alexander; Danso, Owusu-Sekyere; Aryee, George; Essuman, Raymond; Djagbletey, Robert	Perioperative Analgesic Effect of Serratus Anterior Plane Block for Breast Surgery: A Randomized Control Study at a Large Teaching Hospital in Ghana.	2024	10.7759/cureus.63397	Wrong patient population
Ahmed, Malik Jamil; Ur Rehman, Abaid; Arshad, Rana Muhammad; Amjad, Muhammad Wasim Ali; Khan, Zeeshan; Furqan, Aamir	Efficacy of Dexmedetomidine vs Morphine as an Adjunct in a Paravertebral Block with Bupivacaine in Postoperative Analgesia Following Modified Radical Mastectomy.	2020	10.7759/cureus.8231	Before 2021
Solmaz Demirel, Hasibe; Buyukbezirci, Gulcin; Yilmaz, Resul; Arican, Sule; Eren Zeydoglu, Ayse Seda; Reisli, Ruhiye; Tuncer Uzun, Sema	Investigation of efficacy of erector spinae plane block administered in different volumes on intraoperative opioid consumption and postoperative analgesia in breast surgery: Randomized, prospective, double-blind study.	2024	10.14744/agri.2023.82346	Wrong outcome studied
Mohammed ALseoudy, M; Abd El-Ghaffar Saleh, M; Saleh Elbalka, S; Elmetwally Farahat, T; Abdellatif Elebedy, D; Elsayed Ahmed, S	An open approach versus ultrasound approach for deep serratus anterior plane block for postoperative analgesia after modified radical mastectomy: A randomized controlled trial.	2025	10.1016/j.redare.2025.501902	Full Text Not Available
Sahin, K; Sayman, C; Kina, S; Surhan Cinar, A	Comparison of serratus plane and erector spinae plane blocks for postoperative analgesia	2025	10.1016/j.redare.2025.501830	Full Text Not Available

	in unilateral breast surgery.			
Grigoraki, Aggeliki; Tsirtsridou, Vasiliki; Stylianaki, Aikaterini; Mariolis, Theodoros	The Role of alpha-2 Adrenergic Receptor Agonist Dexmedetomidine Alone or in Combination with Ropivacaine in Postoperative Pain Management Following Breast Surgery.	2026	10.26574/maedica.2026.21.1.12	Wrong intervention
Song, Wen-Qin; Wang, Wei; Yang, Ying-Cong; Sun, Qian; Chen, Hui; Zhang, Lei; Bu, Xue-Shan; Zhan, Li-Ying; Xia, Zhong-Yuan	Parasternal Intercostal Block Complementation Contributes to Postoperative Pain Relief in Modified Radical Mastectomy Employing Pectoral Nerve Block I and Serratus-Intercostal Block: A Randomized Trial.	2020	10.2147/JPR.S237435	Before 2021
Ling, Dandan; Wei, Shiyou; Wang, Shilai; Wang, Ping; He, Zhiyong; Hu, Zhen; Yu, Sanjian; Wu, Yiqiu; Wang, Bei; Zhang, Jun; Xu, Jianghui	Recovery quality with regional anesthesia and dexmedetomidine sedation versus general anesthesia for ambulatory breast cancer surgery: A randomized trial.	2026	10.1016/j.breast.2026.104776	Wrong intervention
Ak, Hulya Y; Taskin, Kubra; Yediyildiz, Merve B; Durmus, Irem; Sezen, Ozlem; Sandal, Baris; Cevik, Banu	Comparative analysis of PECS-2 and ESP for acute and chronic pain control in breast-conserving surgery. A prospective study.	2025	10.24875/CIRU.24000223	Wrong intervention
Kim, Won-Joong; Lim, Woosung	Efficacy of erector spinae plane block with opioid-sparing analgesic technique in breast-conserving surgery.	2021	10.4174/astr.2021.100.5.253	Wrong intervention

Gad, Mona; Abdelwahab, Khaled; Abdallah, Ahmed; Abdelkhalek, Mohamed; Abdelaziz, Mahmoud	Ultrasound-Guided Erector Spinae Plane Block Compared to Modified Pectoral Plane Block for Modified Radical Mastectomy Operations.	2019	10.4103/aer.AER_77_19	Before 2021
Priya, Surabhi; Bamba, Charu	Comparison of Morphine and Clonidine as Adjuvants in Paravertebral Block.	2018	10.4103/aer.AER_27_18	Before 2021
Sahu, Ashutosh; Kumar, Rajnish; Hussain, Mumtaz; Gupta, Ajit; Raghwendra, K H	Comparisons of single-injection thoracic paravertebral block with ropivacaine and bupivacaine in breast cancer surgery: A prospective, randomized, double-blinded study.	2016	10.4103/0259-1162.191109	Before 2021
Vanni, Gianluca; Caiazza, Giordana; Materazzo, Marco; Storti, Generoso; Pellicciaro, Marco; Buonomo, Chiara; Natoli, Silvia; Fabbi, Eleonora; Dauri, Mario	Erector Spinae Plane Block Versus Serratus Plane Block in Breast Conserving Surgery: Alpha Randomized Controlled Trial.	2021	10.21873/anticanres.15383	Full Text Not Available
Yao, Yusheng; Li, Hao; He, Qiaolan; Chen, Tingting; Wang, Yihang; Zheng, Xiaochun	Efficacy of ultrasound-guided erector spinae plane block on postoperative quality of recovery and analgesia after modified radical mastectomy: randomized controlled trial.	2019	10.1136/rapm-2019-100983	Before 2021
Qian, Lulu; Zhang, Hongye; Miao, Yongsheng; Qu, Zongyang; Zhang, Yuelun; Hua, Bin; Hua, Zhen	Comparison between ultrasound-guided intertransverse process and erector spinae plane blocks for breast cancer surgery: A randomised controlled trial.	2025	10.1097/EJA.0000000000002091	Wrong outcome studied

Nielsen, Martin Vedel; Tanggaard, Katrine; Hansen, Lone Bak; Hansen, Christian Kruse; Vazin, Mojgan; Borglum, Jens	Insignificant influence of the intertransverse process block for major breast cancer surgery: a randomized, blinded, placebo-controlled, clinical trial.	2024	10.1136/rapm-2023-104479	Wrong intervention
Wei, Z; Lei, G Y; Wu, L L; Xi, C H; Yin, Y; Wang, G Y	[Effect of ultrasound-guided serratus plane block combined with pectoral nerve block I on postoperative analgesia after radical mastectomy].	2022	10.3760/cma.j.cn112137-20220513-01048	No English Text Available
Wu, L L; Xi, C H; Yin, Y; Lei, G Y; Wang, Y; Du, Y J; Wei, Z; Hu, C H; Wang, G Y	[Comparison of the post-operative analgesic effect of ultrasound-guided serratus anterior plane block combined with pectoral nerves block I and thoracic paravertebral block in radical mastectomy].	2021	10.3760/cma.j.cn112137-20210314-00630	Full Text Not Available