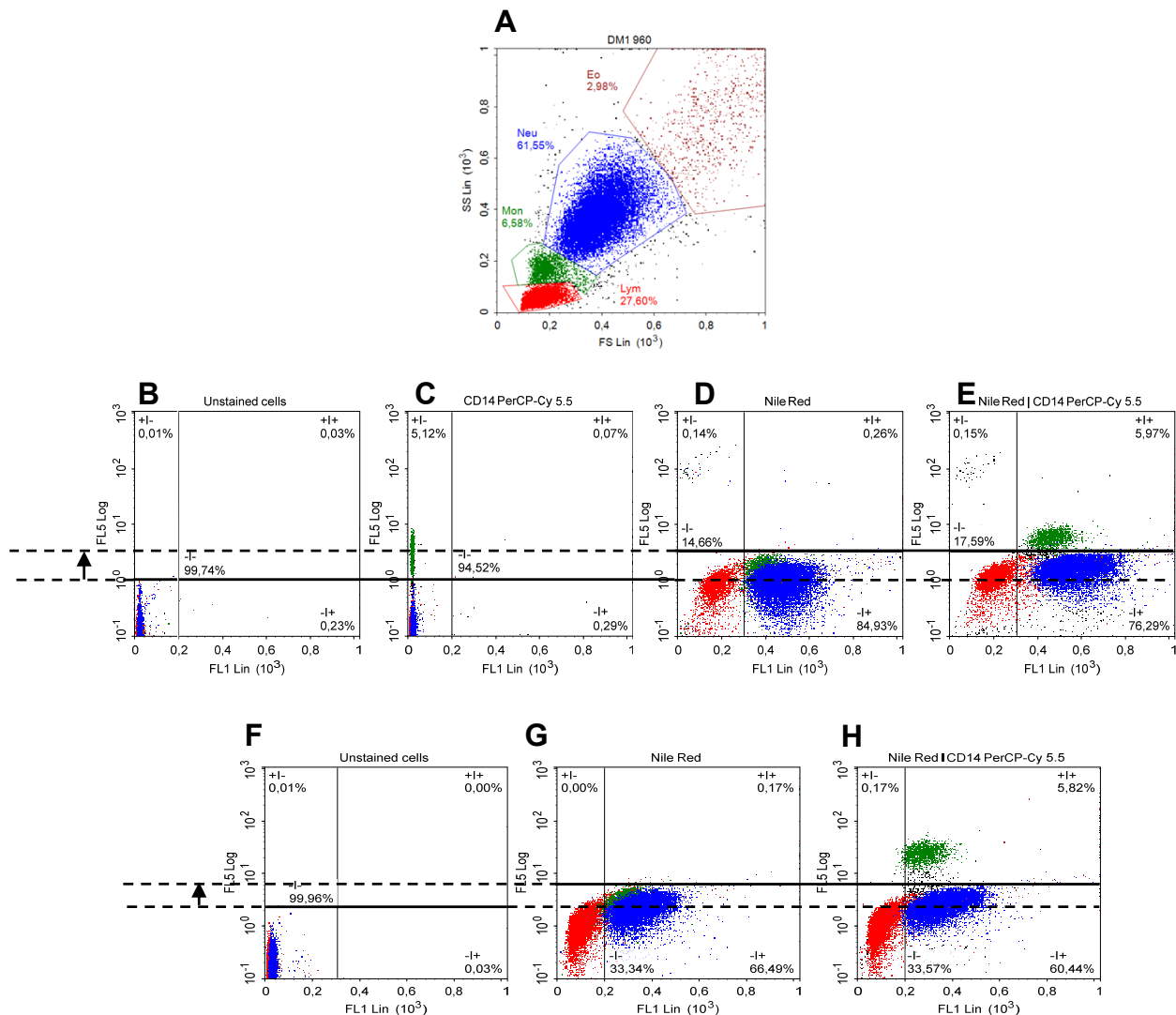


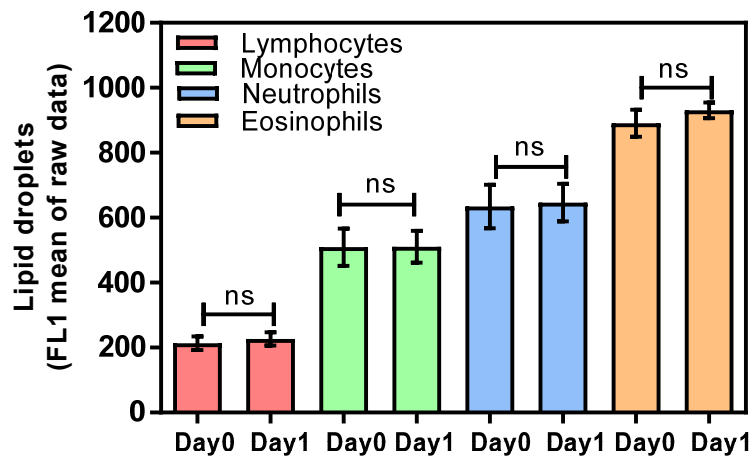
Supplementary Material

Supplementary Figures: Supplementary Figure 1



Supplementary figure 1. Double staining of blood leukocyte subpopulations with CD14-PerCP-Cy 5.5 and high concentration of Nile Red (400 ng/mL) and low concentration of Nile Red (50 ng/mL). 50 μ L of human blood samples kept in EDTA anticoagulant were stained with anti-CD14 PerCP-Cy 5.5, and/or Nile Red. Leukocyte subpopulations were gated based on FS and SS parameters (**A**), with the exception of monocytes CD14+ cells that were gated based on SS and FL5 parameters. Leukocyte subpopulation were unstained (**B**), stained with CD14-PerCP-Cy5.5 (**C**), high concentration of Nile Red (**D**) and double stained (**E**). The same experiment was repeated with low concentration of Nile Red with unstained cells (**F**), low concentration of Nile Red (**G**) and double stained (**H**). Dashed line: lower threshold of positive CD14 signal in FL5 of unstained cells. Solid line: lower threshold of positive CD14 signal in FL5 of Nile red stained cells. Lymphocytes, red; Monocytes CD14+, green; Neutrophils, blue; Eosinophils, brown.

Supplementary Figure 2

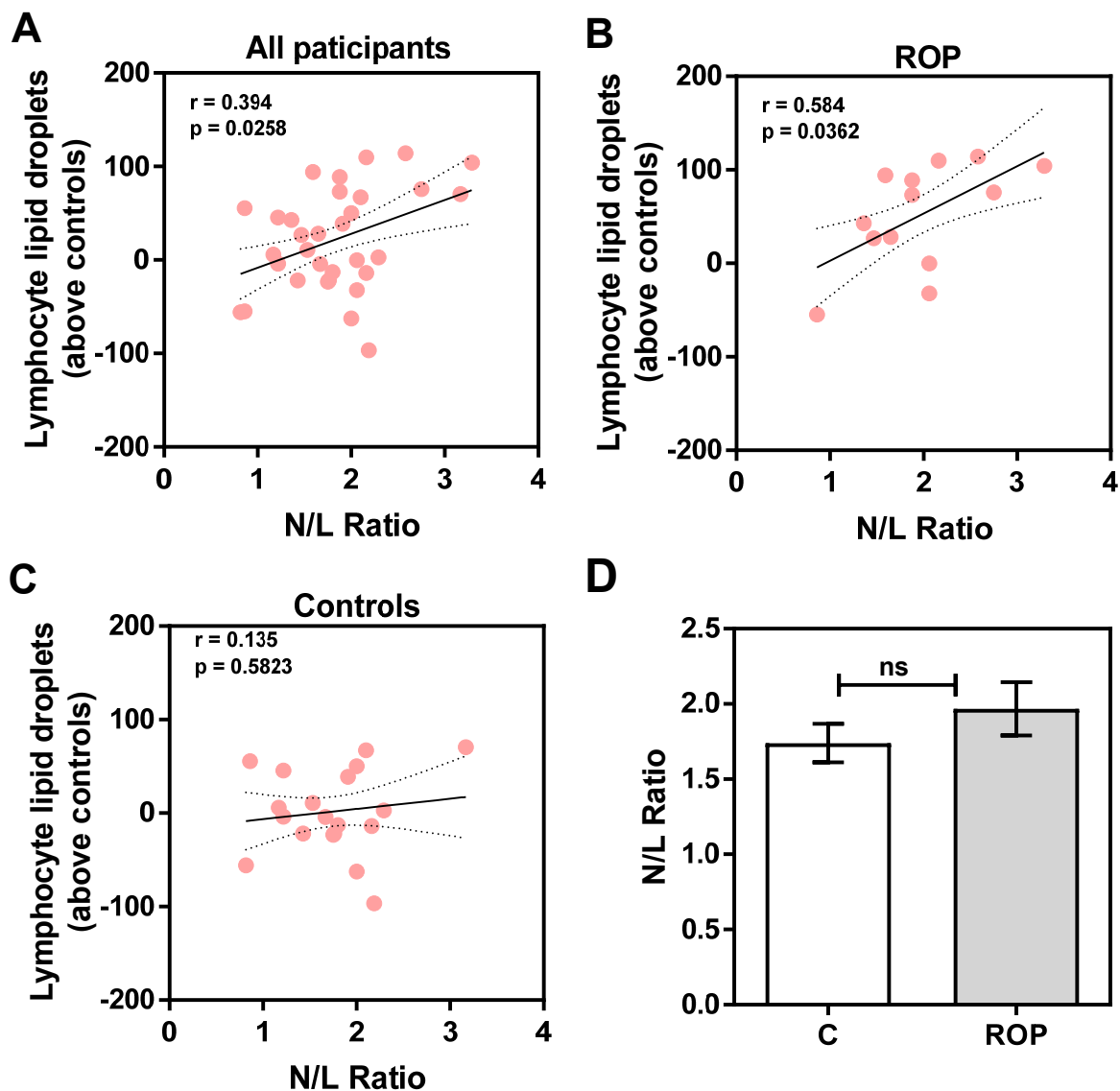


Supplementary figure 2. There are no differences of lipid droplet content with time of processing.

FL1 mean raw data in each leucocyte subpopulation was analyzed in day 0 (n=9) compared day 1 (n=9). FL1 mean values of subpopulation between day 0 and day 1 there are no significant differences.

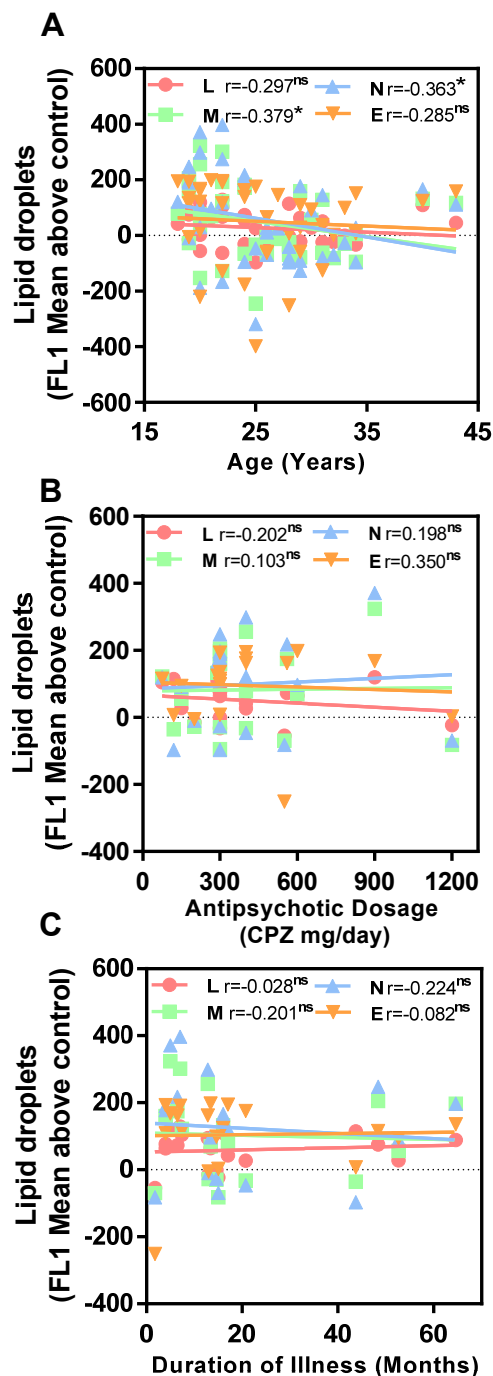
FL1 mean values of subpopulation between day 0 and day 1 there are no significant differences (Lymphocytes (p-value = 0.6591) (t = 0.4495; df= 16; Mean ± SD: day 0: 213.5 ± 62.75; day 1: 226.7 ± 61.5), monocytes (p-value = 0.9843) (t = 0.02001; df = 16; Mean ± SD: day 0: 509.2 ± 172; day 1: 510.7 ± 147.7) and neutrophils (p-value = 0.8936) (t = 0.1359; df = 16; Mean ± SD: day 0: 634.1 ± 200.9; day 1: 646.2 ± 174.0), eosinophils (p-value = 0.4148) (t = 0.8373; df = 16; Mean ± SD: day 0: 890.6 ± 124.5; day 1: 930.6 ± 70.9)). Statistical analysis was performed using unpaired two-tailed t-test.

Supplementary Figure 3



Supplementary figure 3. There are no differences of inflammation markers between controls and recent onset psychoses. **A, B and C.** Associations between lymphocyte LD and neutrophile to lymphocyte ratio in all participants (n=32) or only recent onset psychoses (ROP) cases (n=13) or unaffected controls (n=19) as indicated. **D.** The ratio neutrophil to lymphocyte comparison between ROP (n=13) and unaffected controls (n=19) (p-value = 0.2919) (t = 1,073; df= 30; Mean $\pm$ SD: ROP: 1.74 ± 0.56 ; C: 2.00 ± 0.17). Values represent the mean $\pm$ standard error of mean for each group. Statistical analysis was performed using unpaired two-tailed t-test (ns, not significant).

Supplementary Figure 4



Supplementary figure 4. There is no association of lipid droplet content with confounding variables.

A. Associations between LD and age were performed for each leukocyte subpopulation (n=40). **B.** Lipid droplet content of different subpopulations was associated with antipsychotic dosage (AP) (mg/day) (n=19). **C.** Lipid droplet content of different subpopulations was associated with duration of illness (DI) in months (n=19). Values represent the mean of the replicate of FL1 mean. Data were fitted by linear regression. Statistical analysis was performed using Spearman correlation, Spearman's r coefficient is indicated for each analysis (ns, not significant; *, p-value < 0.05). L, Lymphocytes; M, Monocytes CD14+; N, Neutrophils; E, Eosinophils.

Supplementary Table:

Supplementary Table 1. Association analysis of clinical variables of recent-onset psychosis (n=20) with LD content in leukocyte subpopulations.

Supplementary Table 1. Association analysis of clinical variables of recent-onset psychosis (n=20) with LD content in leukocyte subpopulations.

ROP (n=20)	Daily AP dose ^{a, b}	DI (Months) ^b	PANSS P ^c	PANSS N ^c	PANSS G ^c	PANSS T ^c
	r	r	r	r	r	r
Lymphocytes	-0.202 ^d	-0.028	-0.440 [‡]	-0.271 [‡]	-0.236	-0.476*[‡]
Monocytes	0.103	-0.201	-0.156 [‡]	-0.094 [‡]	-0.087	-0.194 [‡]
Neutrophils	0.198	-0.224	-0.142 [‡]	0.076 [‡]	-0.054	-0.183 [‡]
Eosinophils	0.335	-0.082	-0.268	-0.090	-0.302	-0.227

r, Spearman for non-parametric variables, [‡]Pearson r for parametric variables. ROP, recent onset psychosis; C, control; AP, antipsychotic; DI, duration of illness; P, positive, N, negative, G, general psychopathology, T, total. Significant associations are indicated in bold. * p < 0.05

^a Last chlorpromazine equivalent dose was calculated based on the electronic records of drug prescriptions of the patients.

^b missing data n=1

^c missing data n=2