Conclusions
High TFA intake could increase the constitution ratios in TFA+HF group. The unsaturated FA and polyunsaturated FA in TFA were similar to that in the HF group. The abnormality of constitution ratios of TFA and saturated fatty acids, but decrease polyunsaturated fatty acids, especially ω-3 fatty acids, in erythrocyte membrane were determined with gas chromatography. Four constitution ratios of C18:1/C18:0, C18:1/ω-3 FA, ω-3/C0 FA and ω-3/C18:0 were calculated.

Methods
32 New Zealand white rabbits were randomly divided into four groups: control group with common feed; high TFA group with additional TFA 5.0 g/kg.d; high-fat (HF) group with high cholesterol feed and TFA+HF group. The erythrocyte membranes were prepared at 0, 4, 8, 12, and 24 weeks. Two kinds of saturated FA (C18:0 and C16:0), four kinds of unsaturated FA (C18:1, C18:2, C20:4, C20:5ω-3) and two kinds of TFA (t-C18:1 and t-C16:1) in erythrocyte membrane were determined with gas chroma. Four constitution ratios of C18:1/C18:0, C18:1/ω-3 FA, ω-3/C0 FA and ω-3/C18:0 were calculated.

Results
Compared with the control group, TFA group showed not only obviously higher constitution ratios of TFA, but obviously higher ratios of saturated FA and lower ratios of polyunsaturated FA, especially ω-3 FA (2.58±0.35 vs 3.28±0.48, p<0.05), in erythrocyte membrane. The abnormality of constitution ratios of unsaturated FA and polyunsaturated FA in TFA were similar to that in HF group. More abnormal changes of erythrocyte membrane FA constitution ratios were showed in TFA+HF group.

Conclusions
High TFA intake could increase the constitution ratios of TFA and saturated fatty acids, but decrease polyunsaturated fatty acids, especially ω-3 fatty acids, in erythrocyte membrane. These effects were equivalent with the effects of high cholesterol intake. Combined with TFA and high cholesterol intake had obviously synergistic effects.

Objective
To investigate the influences of high trans fatty acids (TFA) intake on fatty-acid constitution ratios of erythrocyte membrane in rabbits.

Method
32 New Zealand white rabbits were randomly divided into four groups: control group with common feed; high TFA group with additional TFA 5.0 g/kg.d; high-fat (HF) group with high cholesterol feed and TFA+HF group. The erythrocyte membranes were prepared at 0, 4, 8, 12, and 24 weeks. Two kinds of saturated FA (C18:0 and C16:0), four kinds of unsaturated FA (C18:1, C18:2, C20:4, C20:5ω-3) and two kinds of TFA (t-C18:1 and t-C16:1) in erythrocyte membrane were determined with gas chromatography. Four constitution ratios of C18:1/C18:0, C18:1/ω-3 FA, ω-3/C0 FA and ω-3/C18:0 were calculated.

Results
Compared with the control group, TFA group showed not only obviously higher constitution ratios of TFA, but obviously higher ratios of saturated FA and lower ratios of polyunsaturated FA, especially ω-3 FA (2.58±0.35 vs 3.28±0.48, p<0.05), in erythrocyte membrane. The abnormality of constitution ratios of unsaturated FA and polyunsaturated FA in TFA were similar to that in HF group. More abnormal changes of erythrocyte membrane FA constitution ratios were showed in TFA+HF group.

Conclusions
High TFA intake could increase the constitution ratios of TFA and saturated fatty acids, but decrease polyunsaturated fatty acids, especially ω-3 fatty acids, in erythrocyte membrane. These effects were equivalent with the effects of high cholesterol intake. Combined with TFA and high cholesterol intake had obviously synergistic effects.

Objective
To investigate the effects of hydrogen sulphide (H2S) on brain injury after cardiopulmonary resuscitation (CPR) in rats by examining neurons apoptosis.

Method
The 40 male SD rats were randomly divided into experimental and control groups equally. In control group, CPR was performed with Utstein mode at 6 min after CA. On this basis, sodium hydrosulphide was administrated to the rats after restoration.