of fatty acids, stearic, palmitic and myristic acid which belong to saturated acid were detected as spots, oleic and linoleic acid which belong to unsaturated acid were also detected. On the 80th day linolenic acid (unsaturated) was detected. Composition of fatty acids in orbital tissue evidently differed from that of the optic nerves.

4) The results of the quantitative analysis of fatty acids in the optic nerves were as follows:—

a) Concentration of total saturated fatty acid appreciably increased during the first 5 days, and increased gradually until the 60th day, thereafter increased rapidly. Concentration of total unsaturated acids increased at a rate almost similar to the above mentioned saturated until 40th day, but concentration of total unsaturated was lower than that of total saturated. On the contrary, after 60th day the former was higher than the latter.

b) The rate of increase of total saturated fatty acid was mostly due to palmitic acid and to some extent stearic acid. The rate of increase of total unsaturated was due to mainly oleic acid and to some extent linoleic acid until 60th day, but on 80th day the chief components of increase were mainly linoleic acid and in some degree linolenic.

44. A Study of Experimental Head Injury. Its Influence upon EEG of the Limbic System.

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An attempt has been made to study the changes in EEG of the limbic system induced by an experimental blow to a skull in the rabbit. The results are as follows:

1) Changes in EEG immediately after the blow: fast activities appear in both leads of neocortex and limbic system (amygdala, hippocampus, piriform cortex, and olfactory bulb). They are most evident in the olfactory bulb.

2) No slow wave is observed until 8-10 minutes after the blow. It was most marked in the neo-cortex.

3) No spike activity appears immediately after the blow. It has no definite correlation with the convulsion induced by the blow.

4) In anesthetized animals barbiturate bursts are observed after the blow.

5) In rabbits killed by EEG blow neocortex disappears earlier than in the limbic system.