

Proceedings
of the
Society
for
Experimental Biology and Medicine

VOL. 40.

JANUARY, 1939.

No. 1.

SECTION MEETINGS

CLEVELAND

Western Reserve University December 9, 1938

NEW YORK

New York University Medical School January 25, 1939

PACIFIC COAST

University of California Medical School December 7, 1938

SOUTHERN

Tulane University December 16, 1938

WESTERN NEW YORK

Clifton Springs Sanitarium December 10, 1938

10284 P

Reactions of the Electroencephalogram to Metrazol Injections.*

HANS STRAUSS AND WALTER E. RAHM, JR. (Introduced by C. Landis.)

From the Department of Psychiatry, New York State Psychiatric Institute and Hospital, New York City.

In a paper published earlier by one of us¹ the epileptic attack induced by metrazol was studied by means of high speed photography and the cinematographic findings correlated with electro-myographic records. This paper deals with the coördination of electroencephalographic (EEG) records taken in conjunction with the metrazol seizure, and with our previously published findings.

* This project was aided by a grant from the Child Neurology Research (Friedsam Foundation).

¹ Strauss, H., and Landis, C., PROC. SOC. EXP. BIOL. AND MED., 1938, **38**, 369.

Following the injection of metrazol a seizure may or may not occur. Failure of an overt seizure to appear may be characterized by any one of the following EEG reactions: 1. Drop in the percent time alpha without the appearance of abnormal potentials and return to normal activity in a few seconds. 2. Appearance of abnormal potentials (potentials with a frequency of 3-6 cycles per second) with a slow return to normal after more than 45 minutes. 3. Larval seizure (outburst of a serial sequence of 3-6 cycle per second potentials) with a return to normal activity in less than 15 minutes.

The occurrence of an overt seizure is characterized by the following type of EEG activity:

1. During the latent period and through to the end of the second clonic stage there is continuous activity of a frequency of 30 cycles per second in the precentral region. Activity of a frequency of 10 cycles per second may be recorded from occipital leads during the latent period and the tonic stage. Occasionally activity of a frequency of 15-16 and 3-6 cycles per second may occur in motor-occipital leads during the latent period.

2. The post-convulsive relaxation period shows very low voltage random activity.

3. The recovery period is marked by a gradual increase in frequency from a predominating activity of 3 cycles per second to an activity of 6 cycles per second and finally a complete restoration of normal activity.

A prolonged reaction to the metrazol seizure has been observed. Immediately following the seizure the patient exhibited a disorientation as to time, person and place, which was accompanied in the EEG record by an almost continuous activity of a frequency of 3 cycles per second. The EEG showed a gradual return to normal after one week. This was accompanied by a similar clinical improvement.

10285 P

Prenatal Intestinal Movements in Anoxemia.

W. F. WINDLE* AND C. L. BISHOP.

From the Anatomical Laboratory, Northwestern University Medical School.

The extent to which fetal gastro-intestinal movements occur normally in intrauterine life is unknown. However, we are led to believe that they are present because meconium passed at birth con-

* Aided by a research grant from the American Academy of Arts and Sciences.