

SCIENTIFIC PROCEEDINGS.

ABSTRACTS OF THE COMMUNICATIONS.

Thirty eighth meeting.

Cornell University Medical College. April 20, 1910. President Morgan in the chair.

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On the neurocytologic changes in shock, infection, Graves' disease, and certain drugs, with a note on fear in rabbits.

By **GEORGE W. CRILE, M.D.**

In a series of observations on the neurocytes of the cortex, the cerebellum and the medulla in shock, infection, Graves' disease, iodoform, strychnia and alcohol poisoning, these cells, principally in the fatal cases, showed a marked alteration in the nucleus-plasma relation and in the size of the cell.

In the infections, in Graves' disease, in iodoform poisoning and in shock, these changes while varying greatly were in some degree seen in most of the cells. In alcohol and strychnia poisoning some cells were extremely altered while others were but slightly or not at all changed. The changes were studied by counting and measurement and compared with the normal. Due allowance was made for the great variation in the normal. A study of a large series of normal animals served as a basis for comparison. For example, in the normal no cell showing destruction of the nucleus and nucleolus with rupture of the cell membrane was observed, while in the fatal cases from the various diseases studied, there were many such cells. The tissue was all taken fresh, much of it was taken during life and dropped immediately in the fixative solution.

Frightened rabbits subjected to no trauma and no exercise showed almost complete prostration. Their brains in contrast

with normal animals took a much deeper Nissl stain and showed a disturbance of the nucleus-plasma relation and size of the cells.

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Further observations on hemolysis in cancer.

By **GEORGE W. CRILE, M.D.**

This note is based on a study of fifty-two cases. Blood from three normal individuals is used for each test. With each there is a control heated to 55° C. for ten minutes and also a salt control. A hemolytic reaction in one or more tubes is counted as a positive test. Of the cases offering a fair surgical risk, 82 per cent. showed a positive reaction; of the advanced cases 39 per cent. showed reaction. Of these all but one showed reverse hemolysis. These results conform with my former tables. The total number thus far observed is three hundred and one. In a large number of observations upon surgical patients other than those with cancer or tuberculosis, there is rarely a hemolytic reaction. In tuberculosis the reaction, when present, is always reverse. In chronic infection there is, in about ten per cent., a direct hemolysis. Among apparently normal individuals, hemolysis occurs in about two per cent.

We conclude that hemolysis occurs rarely in normal individuals, occasionally in routine surgical patients excepting those with tuberculosis and cancer. In active tuberculosis it is the rule and is always of the reverse type. In advanced cancer there is hemolysis in about two out of five patients and in these the hemolysis is usually reverse. In the operable stage of cancer among about four out of five patients direct hemolysis occurs. Hemolysis is therefore additional evidence of cancer, but in no sense specific.

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On the behavior of autodermic and isodermic skin grafts in cancer.

By **GEORGE W. CRILE, M.D.**

I have observed in cases having growing cancers that isodermic grafts of skin from husband and from son caused a marked local reaction, characterized by excessive exudation, edema, red-