is impossible save with the full complement of cell organs (macro- and micronucleus and cell protoplasm).

10. Experiments in cutting *Paramecium caudatum* were also made. Here regeneration of the cell does not occur save under exceptional conditions which I shall report at length upon later. A frequent result is the formation of monsters with from two to fourteen mouths; an abnormality due to some derangement of the cellular mechanism through the removal of a small portion of the cytoplasm.

30 (555)

Iodine as a skin disinfectant in animal surgery.

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In experimental physiology where it is necessary that the animal be allowed to recover after the removal of an organ or the establishment of a lesion, the operative procedure is carried out under full anæsthesia and with aseptic or antispetic precautions as in human surgery. The preliminary disinfection of the skin by scrubbing with soap and water and the subsequent washing with bichloride, carbolic or alcohol, takes considerable time and in most cases must be done after the animal is anæsthetized; besides where the operative field includes the head or face there is always danger of the eyes being accidentally injured by the irritative fluids. Then again, after operation everyone has experienced the difficulty of keeping the dressing properly applied to the wound which must be protected from outside contamination unless the animal be kept in aseptic surroundings—a condition practically impossible in most laboratories. Any method, therefore, which will materially save time and trouble and at the same time not increase the risk is particularly desirable in animal surgery and such a method, I believe, is to be found in the use of iodine as a skin disinfectant.

Iodine was first applied in human surgery about fifty years ago by Bryant[1] and Boinet[2] and recently it has come into vogue

[1] *Brit. Med. Journ.*, 1910, I., p. 1003.

[2] *The Lancet*, 1910, CLXXIX., p. 1888.

again. The results are claimed to be eminently satisfactory but there may be objections to its application to the comparatively sensitive skin of the human subject on account of its irritating qualities which do not obtain in the case of animals.

The method adopted by me, which is a modification of that employed by Grossich, is as follows: Immediately before the animal—*e. g.*, cat or dog—is put into the ether chamber the hair is cut short and the skin shaved dry along the line of the intended incision. Tincture of iodine (U.S.P. 7.5 per cent. in 95 alcohol) is painted on and a little way around the shaved area with a camel hair brush and the anæsthetic is administered. When the animal is fully under (with ether this usually takes ten to fifteen minutes) and placed on the table a second application of the iodine is made a minute or two before the skin is incised, and a third, after the stitches are in, when the operation is finished. No dressing of any kind is applied to the wound but the day following the operation a fourth application of the tincture is made. No further treatment is necessary,

During the last four months many operations have been performed in this laboratory on a variety of animals—rabbits, cats, dogs, sheep, raccoons, opossums, etc., and in every case where the above procedure has been adopted healing has been by first intention and rapid.

31 (556)

The Diagnosis of Abortive Cases of Poliomyelitis by the Demonstration of Specific Antibodies.

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The occurrence of abortive cases of poliomyelitis has already been established upon clinical and epidemiological ground. Netter and Levaditi[1] have given the only specific proof of an abortive case of poliomyelitis in a human being by demonstrating, in the serum of such a case, immune bodies capable of neutralizing the

[1] Netter, A., & Levaditi, C., *Compt. Rend. de la Soc. de Biol.*, vol. 68, 1910, pp. 855–857.