4. Temporary beneficial effects may be noticed for periods of one to five months, but the course of the disease is in no way permanently retarded.

5. Temporary relief from pain, especially in uterine cases, and in other cases in which large doses can be given, and retardation of the growth for periods varying from one to five months, may be expected in a small per cent. of the cases.

6. Noticeable benefit in the general physical condition has resulted in one patient with cancer of the ovary by the injection of her own fluid.

APPENDIX

Since the completion of this report on the first forty-five cases, Oct. 1, 1910, twenty additional patients have been treated, with practically the same results as in the reported cases, which have confirmed our stated conclusions.

The information obtained from these twenty additional cases, and the more complete following up of the forty-five original cases, emphasized the following points:

1. Great symptomatic relief can be obtained in a good percentage of the patients treated, evidenced by relief from pain and improvement in nutrition and general physical condition.

2. Retardation is noticeable and prolonged from one to six months in many cases.

3. Ascitic fluids are liable to hasten the process in practically all mouth and jaw cases.

4. This work, together with the use of the x-ray in other cases, and curetting and skin-grafting sluggish epitheliomatous ulcers, has impressed me with the fact that much can be done for the relief of the seemingly hopeless inoperable cancer patient. While cures and benefit cannot be expected in every case, in spite of the fact that no cures have been accomplished, the work has emphasized the fact that much symptomatic relief can be given to suitable individual cases.

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CHEMICAL DERMATITIS FROM INCOMPATIBLE EXTERNAL APPLICATIONS

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It is a well-known fact that dermatitis is frequently caused by internal medication. With somewhat less frequency do we see a case of dermatitis caused by a combination of internal medication with a wrongly chosen external application—as for example, iodids internally and calomel dusting powders externally. Still more rarely do we see a case of dermatitis caused by chemically incompatible drugs used externally; and it is for this reason that I consider the following case of sufficient interest to be reported:

History.—A patient, male, came to me suffering from a typical case of impetigo contagiosa. There were eight or ten lesions irregularly distributed over an area about 8 cm. in diameter in the left anterior cervical region. Ammoniated mercury ointment was ordered.

Dermatitis.—The patient returned the following day to say that shortly after the first application of the ointment the area began to burn and sting severely. For several hours he underwent a great deal of discomfort. On examination it was found that a very large area, probably from 15 to 20 cm. in diameter, was highly inflamed. It was of a diffuse bright red color, with several small blisters and larger blebs which contained a thin seropurulent exudate. Some of the larger blebs were from 1 to 2 cm. in diameter. Careful inquiry proved that no mistake had been made in the ointment used. Inquiry was then made as to whether the patient was taking iodids. This inquiry was answered negatively, but brought out the fact that the so-called colorless tincture of iodine had been used externally.

This tincture of iodine had been prepared by adding to ordinary tincture of iodine enough sodium thiosulphate to displace the color. It should be remembered that such a pharmaceutical preparation would result in a mixture of sodium iodide and sodium tetrathionate, and that since it would no longer contain free iodine it should not be called "tincture of iodine" ($2\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O} + \text{I}_2 = 2\text{NaI} + \text{Na}_2\text{S}_4\text{O}_6 \cdot 10\text{H}_2\text{O}$).

I attributed the condition to biniodide dermatitis. As a means of corroboration some of the "tincture of iodine" and the ointment were rubbed up together and the white ointment was at once converted into a pink or brick-red. Extraction of the oil by ether left a brick-red granular precipitate.

The reaction in and on the skin between the sodium iodide (NaI) of the mixture and the ammoniated mercury (HgNH_2Cl) of the ointment had evidently resulted in the production of biniodide of mercury (HgI_2), which, through its irritating influence, had produced a dermatitis.

A PECULIAR CAUSE OF INTESTINAL OBSTRUCTION

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Patient.—E. Z., a white man, aged 29, family history negative, was seen first by family physician September 8, suffering with pain in the abdomen, was given purgatives without any relief. Next day purgatives and enemas were given without any relief. In the afternoon, when I saw the patient, he had pain of an intense gripping character and vomiting; he retained nothing by stomach; had no fever. The diagnosis was intestinal obstruction.

Operation.—When the abdomen was opened in the median line, free fluid was found in the abdominal cavity. In the ileum, about two feet from the ileocecal valve, two hard lumps, 2 inches apart, were found obstructing the lumen of the intestine. The intestines were incised, the foreign bodies removed, the intestine sutured, and the abdominal wound closed.

The patient made an uneventful recovery.

The foreign bodies consisted of unmaستicated dried apples. The patient had been eating, the morning of his illness, apples dried in portions of halves and quarters, swallowing them without much mastication. The portions after entering the intestines continued to swell, as dried apples do, and obstructed the lumen of the intestine.

Therapeutics

GENERAL PROPHYLAXIS OF TYPHOID FEVER

In many particulars, no disease surpasses typhoid fever in its importance. It attacks, as a rule, healthy adults, causing a sickness that may last for weeks and even months, and may frequently end in death. It is one of the most preventable of all infectious diseases; it is, therefore, almost inexcusable that it is so widely prevalent.

It is now generally recognized that the essential agent in the causation of typhoid fever is the *Bacillus typhosus*. Since its discovery in the early '80s, and subsequent careful investigation by a number of students, our knowledge of the method of its transmission has been greatly increased. The bacillus has been found in the blood, in the feces, in the urine, and in the bile. It cannot always be discovered in the early days of the disease, but in the second or third week it can generally be detected. It may