

found to be exceedingly active, ten to fifteen minims being sufficient to produce a temperature of 103° F. to 104° F. Other cultures have recently been used. They are prepared by growing the bacillus prodigiosus four weeks or more in the streptococcus broth, to which a little cacao has been added, and which is then heated one hour to 58° C. The fluid is used without filtration, and the injection of five minims has produced a temperature of 105° F.

Of twenty-four cases of inoperable sarcoma recorded, fourteen showed a cure or marked improvement, eight slight temporary improvement, and two no apparent effect. In a sarcoma of the neck and tonsil, the neck tumor was entirely removed, partly by breaking down and partly by absorption, and the tonsillar tumor was much reduced in size. The patient is alive and well more than three years since the beginning of the treatment.

Of the two tumors not affected one was a recurrent osteo-sarcoma of the testis.

Nine cases of carcinoma are reported, but are too recent to note more than marked improvement in several of the cases.

Of three cases, either sarcoma or carcinoma, one showed decrease in the size of the tumor, and is still under treatment, one no apparent effect and the treatment was stopped, and one remained stationary and is still under observation. Eight cases are reported, treated with true erysipelas. Of these three died, two showed no check to the growth, two rapid growth after temporary improvement, and one showed disappearance of the tumor, sarcoma of abdominal wall, and no return seven years later. Two cases following inoculation with live cultures resulted fatally from the erysipelas produced.

*Conclusions:* 1. The curative action of erysipelas upon malignant tumors is an established fact.

2. This action is more powerful in sarcoma than in carcinoma.

3. This action is chiefly due to the toxins of the erysipelas streptococcus, which may be isolated and used with safety.

4. This action is greatly increased by the addition of the toxins of the bacillus prodigiosus.

5. The toxins to be of value should come from virulent cultures, and should be freshly prepared.

6. The results obtained from the use of toxins without danger are so nearly equal to those obtained from an attack of erysipelas that inoculation should rarely be resorted to.—*Am. Jour. Med. Sci.*

## CIRCUMSCRIBED ATROPHY OF THE HAIR AND SKIN OF THE SCALP.

It is not within the range of these few remarks to allude to the common form of bald patches which are met with in the hairy parts of the body. These are undoubtedly due to the invasion of the skin by a micro-organism, and they are known by the generic name of alopecia areata. But I am desirous to call attention to a group of cases which, so far as I know, have not hitherto been described, and which are distinguished by the following attributes:—1. The atrophic areæ are confined to the scalp. 2. The areæ are absolutely bald. 3. The areæ are depressed like ordinary scars. 4. The hair never returns. The following case is an example of the condition:—

A woman thirty-nine years of age, who has always had a fair share of health, and who is the mother of six children, came to me in 1893, because "her hair was coming out." There was nothing unusual in her skin or epidermic structures, but on examination she had a cluster of bald patches on her scalp, which were practically confined to the parietal regions. They varied in size from a split pea to a shilling; some had joined at their circumference. I could not obtain a history of any inherited tendency towards the condition, and it may be taken as a fact that she had not been syphilised. Neither had she at any time been the subject of severe headaches or had any injury. The scars (for such they literally were) resembled those one sees when lupus erythematosus attacks the scalp, or when a scald or a burn has been inflicted. I have looked carefully through my notes taken during the last ten years, and, although I find that thirteen such cases have consulted me, in every instance the patient has been a woman. I have naturally asked myself the question, "Why do these patches occur?" and I confess to an inability to find a satisfactory reply. The medical man might shelter himself behind a theory of local anæmia, which in the first degree would produce a diminished growth of hair, and if continued would lead to atrophy or even to local death, but no one would accept such a hypothesis. Cases of loss of hair, which have been either a sequel or a symptom connected with profound disturbance of the nervous system, are on record. Cooper Todd described the case of a man who fell from a wagon and sustained injuries which caused hemiplegia and loss of consciousness, and who one day on going to shave himself could not find any beard. Fischer, who had great experience in military surgery, noticed after gunshot wounds that the limb corresponding to the wound received (if that wound had interfered with the nervous integrity of the part) became bald. Virchow describes a circumscribed atrophy which has been