On the Entrance of Bath-Water into the Vagina of Pregnant and Parturient Women, and the Usefulness of Baths at these times.

HERTZKA. *Monats. für Geburts. und Gynäk.*, September, 1902.

STROGANOFF first drew attention to the possibility that bath-water might be a source of infection to parturient women, and tried to show by means of chemical reactions that water does get into the vagina during the bath usually taken before labour. As a result of giving up baths and merely washing in a flat metal basin, the morbidity percentage of his cases sunk from 15 to 7 per cent. On the other hand, Winternitz repeated his experiments, and came to a directly opposite conclusion. Sticher experimented with bath-water in which quantities of the *Bacillus prodigiosus* were mixed, and found that this bacillus after the bath could, as a rule, be cultivated from the vaginal secretions. His experiments were carefully carried out, the vagina being opened after the bath by separation of the labia by the hands of an assistant from the outside, and pulling the anterior from the posterior vaginal wall by means of sterile forceps. In this way a platinum needle could be plunged into the vagina 2 or 3 cm. from the hymeneal remains without any chance of touching the skin or being otherwise contaminated. The author points out that this method, however, is open to objection, because the small layer of bath-water adhering between the labia must run backwards into the vagina as this is opened, and this is probably the source of the bacteria from which the cultivations were made. On this account the author repeated Sticher's experiments with an improved technique. He introduced into the vagina before bathing a very small sterile gauze tampon attached to a fine, but firm, steel thread, which passed through a small sterile glass tube, and was fixed water-tight into its lower end. Thus the gauze tampon could be drawn into the glass tube after the bath, and so removed from the vagina without contamination from the vulva. At the same time, if any water did get into the vagina, the gauze tampon would soak it up, and so would contain bacilli which were in the water. In eight cases investigated in this way no bacilli could be cultivated from the gauze tampon, although some of the patients were multiparæ. From these experiments it would seem that water probably does not enter the vagina during the bath. Nevertheless, it is clear that the bath-water must contain bacteria, epithelial scales, possibly dried

excrement, etc., and so, if by any chance some did get into the vagina, it might be a source of infection. Therefore the author comes to the conclusion that the bath should be given up, and washing with a stream of warm water and soft soap should be substituted. For this purpose he arranges a flat metal basin under the patient, with an arrangement for the water to flow away at once, so that she does not sit in contaminated water.

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