

THE Canadian Practitioner

FORMERLY "THE CANADIAN JOURNAL OF MEDICAL SCIENCE."

EDITORS AND PROPRIETORS:

A. H. WRIGHT, B.A., M.B., M.R.C.S. England.

J. E. GRAHAM, M.D., L.R.C.P. London.

W. H. B. AIKINS, M.D., L.R.C.P. London.

SUBSCRIPTION, \$3 PER ANNUM.

Literary Communications may be addressed to any of the Editors. All Exchanges and Business Communications should be addressed to DR. W. H. B. AIKINS, 68 Gerrard Street East.

TORONTO, DECEMBER, 1885.

Original Communications.

A STUDY OF THE MICROSCOPICAL APPEARANCES OF CYSTIC DEGENERATION OF THE CERVIX UTERI.*

BY W. P. MANTON, M.D. (HARV.), F.R.M.S., DETROIT.

Reported for the CANADIAN PRACTITIONER.

I wish to call the attention of the Society to-night to the pathological changes produced by cystic degeneration of the cervix uteri. In order to thoroughly comprehend these, however, it will be necessary to briefly review the normal histology of the cervical glands.

These glands, as you are well aware, are in form both saccular and tubular, and so very numerous that Tyler Smith—who was one of the first, I believe, to describe them with any accuracy—was able to count upwards of 500 in a portion of the cervix comprising only three rugæ and their interspaces. From this, he estimates that in a well-developed virgin cervix uteri, there must be at least 10,000 of these glands. The secretion from these tubules is a clear, viscid, alkaline, glassy mucus, coagulable in alcohol,—which is ordinarily produced in small amounts, but, under stimulation, as in disease, may be poured out in large quantities. The lining epithelium of the glands is cylindrical, which, as Wyder† has pointed out, just before the age of puberty acquires ciliæ. The

epithelium is said to rest upon a structureless membrane, which is so intimately connected with the subjacent tissue that it cannot be separated. This latter consists largely of fibrous elements, and is consequently firm and compact, so that the general appearance of the cervical mucosa is whiter and thicker than that of the uterine body. Into the lumen of nearly all of the larger glands, one or more minute, papilla-like bodies may be seen projecting; thus often giving the glands a branched appearance. A fine capillary loop may be traced into many of these papillæ.

If we now turn to the condition under consideration, we shall find that the histological appearance of the glands and surrounding tissue is quite changed. At first, when the cysts are quite small, they retain the normal characteristics of the glands, which appear only dilated. As the process of dilation goes on, however, it is found that the ciliæ disappear, the cylindrical epithelium becomes broken, irregular, and sometimes granular in appearance, and is finally replaced by a layer of polymorphous cells. This irregular polymorphous layer gradually becomes disintegrated and replaced by granular material, which is evidently the debris of the cells. In places, even this latter may be removed, and nothing left but the basement membrane or an irregular, ragged surface.

The subjacent tissue also becomes changed; and, instead of appearing firm and compact, as in the normal, it is very open and net-like, with scattered large and small round cells, often

* Read before the Detroit Obstetrical and Gynecological Society, November 4th, 1885.

† Arch. f. Gynakologie, Vol. xiii., 1878, p. 13.