V. SIMPLE PAPILLOMATA REMOVED FROM VAGINAL VAULT AFTER VAGINAL HYSTERECTOMY FOR CERVICAL CANCER. (With Lantern Demonstration.)

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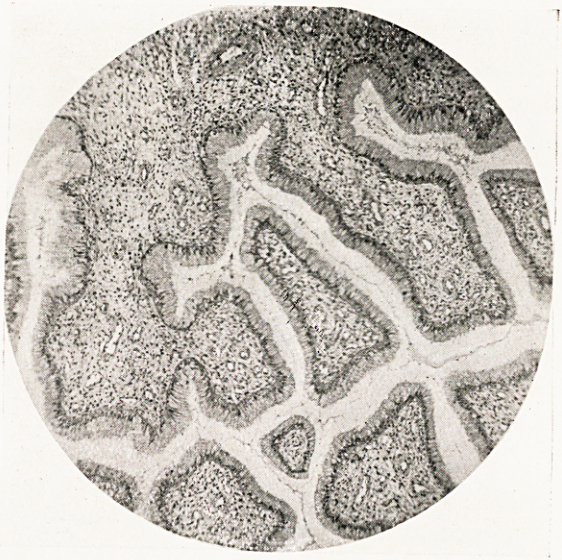
The following are the notes of a patient under treatment in Ward 36, Royal Infirmary, Edinburgh:—

Mrs S., æt. 47; she had seven children, the youngest being 6 years old. On 27th March 1911 a vaginal hysterectomy for squamous epithelioma of the cervix was carried out by Dr Haig Ferguson. At the time it was doubtful whether all the disease was being removed. On 24th April 1911 two soft, bleeding projections were removed from the vaginal wall at the site of the wound in the vault, which was completely healed.

The pathological report of these outgrowths is of considerable interest. Microscopic examination revealed in them characters somewhat similar to those found in a villous papilloma.

At no part was there any evidence of the ordinary squamous epithelium of the vagina. The connective tissue is markedly œdematous, and in places is infiltrated with blood. Many of the vessels are greatly expanded. In places there are large tracts of degeneration. The surface is in parts devoid of an epithelial covering. In most places, however, this is present, and consists of an epithelial layer of flat or cubical cells arranged in a single row. In other regions the cells are several layers deep.

The surface of the growths exhibits appearances of great interest in the existence of distinct villous outgrowths of the



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connective tissue covered by epithelium. The connective-tissue cores are œdematous and in places hæmorrhagic. There is in parts great distension of the vessels. In some places they are disintegrating in a manner similar to the change encountered in the main mass of the growth. The epithelium is one, two, or more layers deep. In places it is absent.

The projections vary greatly in appearance and size. Sometimes they are broad, at other times they are long and filamentous. After arising by a broad stalk they may break up into fine processes. They are often seen to branch. These appearances are shown in the Plate. In some regions the epithelial increase is associated with a projection of epithelium-lined spaces into the superficial parts of the main growth.

The appearances, which have just been described, are somewhat puzzling. It is difficult to give an explanation of the exact origin of the papillomatous growth in this unusual situation. At first sight it might seem that one was dealing with the epithelial lining of the tube, which had been cut across, and the divided end of which was pouting into the vaginal vault. The situation in relation to the scar might be supposed to lend support to this conception. There is no evidence, however, of a lumen in the outgrowths, and the arrangement of the epithelium is such as to negative such a simple explanation. In the first place, the epithelium-covered processes develop over the surface of the growths in a very irregular fashion. Some parts are flat, whereas others are beset with an intricate system of villous growths. In the second place, where the outgrowths occur they do not correspond to the simple arrangement of the mucous folds such as is found in the inner portion of the tube, *i.e.*, the end with which one would be dealing, as the tube is cut across close to the lateral margin of the uterus. On the other hand, it may possibly be the case that in the outgrowth we see an actual new formation derived from the tubal mucosa, which has

assumed a papillomatous state. As has been noted, however, the epithelium which covers the surface of the main growths and the villous projections is different from that found in the tubal mucosa. Instead of being columnar and ciliated it is, for the most part, flattened or cubical. This, however, may simply represent an incidental alteration.

The other explanation which may be advanced is that the papillomata are derived from the vaginal mucosa, though, as has been mentioned, there is at no part of the growths any trace of the squamous epithelium of the vagina.

On the whole, it would seem that we are dealing with papillomata, simple in nature, derived from a local overgrowth of the mucosa of the inner ends of the tubes, where they have been cut across in the process of detachment of the uterus.

The practical point brought out by this case is that bleeding after a vaginal hysterectomy may occur even after a complete healing of the vaginal vault as the result of a constant oozing from such structures. We have referred to the congestion, œdema, and hæmorrhage exhibited by them.

VI. A CONTRIBUTION TO THE THEORY OF ENZYGOTIC (MONOCHORIONIC) TWINS.

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Introductory.—In the course of an inquiry into the possible autonomous unit-characters making up the human frame, the case of enzygotic twins came up, and as it forms a distinct and interesting section of this general question, it lends itself to separate consideration. Another reason is that Dr Ballantyne has often brought the occasional deformity of such twins before us, without, I am afraid, receiving as much encouragement as