Dr. Thomas S. Cullen then spoke on "Endometritis," giving its pathology, symptomatology and treatment. Endometritis, as its name implies, is an inflammation of the mucous membrane of the uterus, and may be divided into the acute and chronic stages. In the gross appearances in the acute form, the mucosa is usually covered with a grayish-white exudate composed chiefly of pus, and the mucosa itself presents a slightly granular surface; is red and injected.

On histological examination of such a uterus the exudate covering the surface of the mucosa is found to be composed chiefly of polymorphonuclear leucocytes or pus cells. The epithelium covering the surface of the mucosa is swollen and somewhat distorted, and may at times proliferate, resembling squamous epithelium. Again, the epithelium may increase in such a way that new glands are formed on the surface. This condition is rare. Between the epithelial cells are many pus cells and a few small, round cells. The uterine glands are usually normal in number and have an intact epithelium, but that near the mouths of the glands is somewhat swollen, and between the epithelial cells are many pus cells; these are also numerous in the gland cavities. The stroma of the mucosa—in other words, the tissue between the glands—shows considerable dilatation of its blood-vessels, and in the superficial portions is freely infiltrated with polymorphonuclear leucocytes. Such is the picture found in acute endometritis.

In chronic endometritis the mucosa is slightly granular, and in rare instances is gathered up into polypi, producing the so-called polypoid endometritis. On histological examination of the mucosa in the chronic form the surface epithelium is usually intact, but instead of being of the high cylindrical form, is cuboidal, or spindle-shaped. The glands are usually small, but some are dilated and their epithelium is flattened. This is due to the constriction exercised by the newly-formed connective tissue. The stroma of the mucosa shows much small, round-cell infiltration, but the polymorphonuclear leucocytes have to a great extent disappeared.

In those cases where the polypoid condition is found the tips of the polypi are covered by one layer of epithelium and the stroma consists almost entirely of small, round cells.

Between the acute and chronic stages all transitions can be traced. The term glandular endometritis is a most improper one, and one is led to believe that the glands take an active part in the process, but as we have seen the gland elements play an entirely passive role the term glandular endometritis should be abandoned. Endometritis is supposed to be of very frequent occurrence, but Cullen has carefully studied the results in 1800 gynecological cases in the Johns Hopkins Hospital and only found endometritis forty-nine times. The mucosa has been studied in every case where the uterus has been removed or where scrapings were taken, and included many cases where the uterus was removed on account of myomata or where there were double pus tubes. He found that even where there was marked pyosalpinx on one or both sides that the uterine mucosa was frequently perfectly normal. This is at first sight difficult to explain, as the inflammation has in all probability extended to the tubes from the uterus. When the tubal mucosa becomes involved the fimbriated extremity is occluded and the pus accumulates, finding no exit. The uterine cavity, on the contrary, forms a ready avenue of escape for the pus from the uterine mucosa, as with the uterine cavity almost perpendicular the drainage is ideal; hence it is readily seen how the mucosa may have regained its normal or comparatively normal condition before the uterus is removed.

The question is naturally asked, why do so many speak of this or that case being one of endometritis? We all know that an offensive leucorrheal discharge is frequent, and naturally infer that the patient is suffering from endometritis. It must, however, be remembered that we are dealing with a mucous membrane where it is normal for the blood to escape once each month. On histological examination we find a ready explanation for the facility with which the blood pours out, namely, in the fact that the veins in the mucosa have merely a layer of endothelium separating them from the stroma of the mucosa. In patients with a lowered vitality all have frequently noted the presence of a leucorrhea, and have been surprised to see that it disappeared without treatment as soon as the patient regained her usual strength. There has in these cases been a temporary escape of the white blood corpuscles from these venous sinuses which are so prone to allow of the escape of the red blood corpuscles. Endometritis cannot be positively diagnosed without the aid of the microscope. The treatment consists in dilating and curetting the uterus. Dr. Cullen exhibited several drawings of the gross and histological changes found in endometritis.