tissues of the left ventricular band, which bulges irregularly so as to cover the whole of the left cord and the anterior part of the right one. It appears to dip occasionally between the cords so as to prevent their approximation. There are no enlarged glands, no expectoration, no signs of tuberculosis, but there is a tendency to it in her husband's family, he dying, however, of paralysis. A portion of the swelling was removed for microscopical examination, but the examination seems to indicate nothing beyond an inflammatory hyperplasia. It is proposed to remove a larger portion for further examination.

Dr. GRANT said that no tuberculous tendency could be made out, and that Dr. Wyatt Wingrave reported that it did not appear to be malignant. He would be happy to show the case again later when it became clearer.

Epithelioma of the Right Vocal Cord in a Man aged 60; Removal by Thyrotomy.

By J. DUNDAS GRANT, M.D.

THE patient was first seen by the exhibitor on September 24, 1909, complaining of increasing hoarseness of seven years' duration, which had got worse for six months. On examination of the larynx the right vocal cord was seen to be red and infiltrated, and just below it, in front of the right vocal process, there was a conical outgrowth measuring about 2 mm. at its base. A portion of the growth was then removed by means of the exhibitor's forceps, and a microscopical section was made by Dr. Wingrave, who reported that in parts it appeared very much like a squamous papilloma, but in others the variety, size, and shape of the cells were atypical. In other parts the characters of an early epithelioma were well shown. Solid cylinders of epithelium, with nest or pearl grouping of the cells and crowding of the original papillæ, were remarked. Heteromitoses were few and Altmann's granules absent. Lymphocytic infiltration was well marked, and there were nuclear fragmentation and wandering para-nuclear spheres. With the assistance of Dr. Dan McKenzie, Dr. Grant performed thyrotomy, and found the right vocal cord infiltrated right up to its attachment to the arytænoid cartilage, a portion of which he removed along with the cord. The underlying cartilage was freely

scraped, considerable bleeding taking place from a spot above the middle of the side of the cricoid cartilage. The galvano-cautery was very freely used over the whole extent of the removal. Hahn's cannula was removed and replaced with an ordinary tracheotomy tube, which was removed next day. The patient was found to be able to swallow water next day, and was then fed by the mouth. He returned home in nine days. When last seen there was a grey, sloughy condition at the site of removal.

DISCUSSION.

Mr. DE SANTI asked if it was Dr. Grant's custom to cauterize these cases after excising the diseased area? His own opinion was that such a procedure was distinctly irritating and not necessary.

Dr. SCANES SPICER said that, as the malignant mass in this case had been referred to the Morbid Growths Committee, perhaps they would note whether or no the apparent site of origin, or of the point of maximum, or most advanced development, of the growth, had any relation to any prominent angle, ridge, or bump of any of the cartilages or bones of the throat over which the soft tissues played during functional activity—e.g., muscular or vocal processes of the arytænoids, &c. The frictions, stresses, and strains over such areas should be increased when these functional movements were greatly exaggerated—as, e.g., in abdominal breathing—and these might (if persistent and not too excessive) determine the commencement of cancer. He had been led to suspect such an intrinsic or endogenous source of mechanical irritation from the history, clinical appearances, and autopsies, of his own cases of cancer about the cricoid; and on examining the whole series of cricoid and œsophageal cancers in the Royal College of Surgeons Museum and elsewhere, there appeared to be no exception to the rule that the site of origin, or of maximum development, was such a special site of friction, stress, or strain. He had suggested as a working hypothesis that "belly" breathing not only produced increase of intrinsic mechanical irritation here—and also elsewhere in the body—but also a state of chronic auto-intoxication from a stagnant portal system, so that a primary cachexia ensued. He was continuing his own investigations on these points, but hoped all interested observers would join in.

Dr. GRANT replied that Dr. Wyatt Wingrave was very definite about there being an epitheliomatous lesion. The sections were available, and he would be glad to submit them to the Morbid Growths Committee. In answer to Mr. de Santi, he could only say it was a matter of opinion that, by cauterizing, one more effectually sealed up the lymphatics.