ment appeared to be much less and her colour was well maintained on continuous oxygen by mask. She was able to take fluids by mouth. A Wangensteen drainage tube and rectal tube were passed.

On August 8 the abdomen was quite distended but otherwise her condition appeared fair. She was given intravenous feedings of saline and parenamine. By noon distension was markedly increased despite Wangensteen drainage which was showing a good return. During the afternoon she developed complete paralysis of both arms plus increasing difficulty in swallowing and speaking. By 5 p.m. her temperature had risen to 105, colour was poor and general condition very bad. She was being given continuous oxygen. The patient expired at 10.30 p.m.

The diagnosis was acute anterior poliomyelitis, both of bulbar and generalized types, with a pregnancy of 9½ months. The baby is healthy and thriving.

EXTRAMEDULLARY PLASMOCYTOMA OF THE LARYNX*

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Tumours composed of plasma cells, originating outside the bone marrow are rare. The upper respiratory tract is the most common site of these extramedullary growths. Hellwig[1] reviewed the literature from 1905 to 1943 and found 127 cases reported. He added one case of his own. In 64 of these cases the tumour was located in the upper respiratory tract, 47 in the conjunctiva, the others in lymph nodes, the pleura, glandular organs, lachrymal gland, ovary, intestines, urogenital organs, and skin. Three other cases[2] (tonsil, mouth, nose) have been reported since Hellwig's paper was published.

Plasmocytoma of the upper respiratory tract are classified by Hellwig as: (1) non-cancerous single tumours; (2) non-cancerous multiple tumours; (3) cancerous tumours without metastases but with local infiltration or ulceration; (4) cancerous tumours with metastases to lymph nodes or to bone.

Hellwig found only 12 cases of extramedullary plasma cell tumours of the larynx. Nine of these were considered non-cancerous while the other 3 were considered malignant and had metastases. He points out the difficulty of classifying plasmocytoma into non-cancerous and cancerous from a histological point of view and states that from a prognostic standpoint the localization and appearance would appear to be a more reliable means of classification. He believes that if the tumour is localized and confined to soft tissue, a clinical cure can be obtained by adequate surgery or irradiation or both, but that if the growth has locally invaded bony structures or spread to lymph nodes or the skeleton, the prognosis is unfavourable. And even in some cases in which a primary tumour has been excised and did not recur for years, secondary foci have unexpectedly become manifest in other parts of the body with rapid progress to a fatal outcome. The uncertainty of the prognosis is emphasized by Figi, Broder, and Haven[3] who reported 11 cases of plasmocytoma in a series of 2,886 malignant tumours of the upper respiratory tract examined at the Mayo Clinic. They consider all these tumours malignant and treat them as such.

Mr. O., aged 53, presented himself in January, 1947, with complaints of hoarseness which he had noticed for 9 to 10 years. He had been working, at the onset of his hoarseness, in a chemical plant and blamed his hoarseness on the fumes to which he was exposed. He was seen in the Otolaryngology Clinic of the Montreal General Hospital. Investigation led to a diagnosis of chronic laryngitis. Following this, his voice improved but never became as clear as it had been.

In November 1946, while working as a carpenter, he was exposed to a very heavy concentration of coke gas with the result that he almost completely lost his voice and coughed up blood for 2 or 3 days. He was forced to stop work and had not returned to work at the time he came to the clinic.

He states that he had one acute attack of dyspnœa one year prior to coming to the clinic. He was awakened one night very short of breath. The family doctor gave him a hypodermic which brought immediate relief. There were no other acute attacks. However, during the fall of 1946 he began to experience mild dyspnœa again although it was not severe enough to interfere with his work. It was noticed mostly at nights when he would try to sleep on his back. The shortness of breath would waken him. He obtained immediate relief by sitting up or turning on his side. The dyspnœa was more noticeable following the exposure to coke gas and was largely his reason for stopping work.

Other symptoms referable to the upper air passages included a sense of foreign body in his throat at times. There was no dysphagia although he said that occasionally foods seemed to hesitate in his throat momentarily. There was no pain. He had had a dry cough since his exposure to the coke gas. He occasionally brought up a little dark sputum but there was no blood in the sputum. He had not lost any weight. His past history

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was essentially negative. He was subject to frequent head colds and occasional sore throats which did not appear to be related to his laryngeal symptoms. He smoked 20 to 30 cigarettes daily and used alcohol in moderation.

Physical examination revealed a healthy well developed and well nourished man with a very husky voice, but in no respiratory distress. He had many carious teeth. The cervical lymph glands were not enlarged. X-rays of his chest and sinuses were normal. His Wassermann was negative. Hæmatology was within normal limits. An x-ray of his larynx revealed a rounded shadow but its exact site of origin could not be determined.

Indirect laryngoscopy was unsatisfactory due to a small overhanging epiglottis which obscured the anterior part of the glottis. An occasional view could be obtained of a rounded growth which appeared to be coming from the left side of the anterior commissure.

Direct laryngoscopy revealed a smooth rounded protruding growth, covered by intact mucous membrane looking like a polyp, with a broad base coming from the anterior part of the left ventricle and left true cord. It hung down into the subglottic region and partially blocked the glottis. A biopsy was taken on two occasions. The growth was noted to be very hard, almost cartilaginous in consistence. The biopsies were reported as extramedullary plasmocytoma.

Laryngofissure under local anæsthesia was considered the operation of choice. On opening the larynx a large

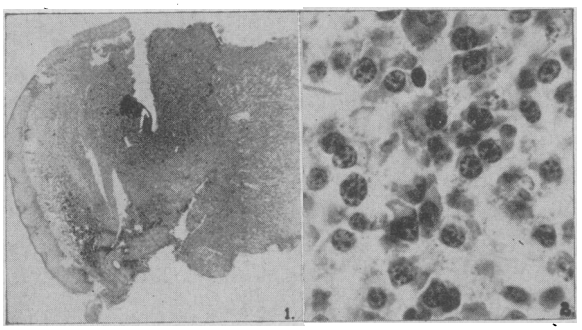

Fig. 1.—Low magnification view of solid, compact tumour tissue covered on one surface by intact squamous epithelial membrane. The tumour does not involve the lamina propria adjacent to the epithelium. **Fig. 2.**—High magnification view of the tumour tissue to illustrate the plasma cell nature.

polypoidal growth was found hanging down through the glottis and coming from the left false cord, the anterior commissure and involving the anterior part of the right false cord. The whole growth along with the whole left false cord and the anterior part of the right false cord was removed. Bleeding was minimal and was easily controlled. A tracheotomy was not required. The patient made an uneventful recovery. He has been followed for almost a year and so far there has been no evidence of a recurrence. His voice has improved and is now quite clear and strong.

Pathology Report.—The tissue of both the biopsy specimens and that representing the resected tumour was of nondescript, solid, homogeneous and firm white character. The latter measures 2.5 x 1.5 x 1.0 cm. Microscopically the tumour has a polypoid form with a covering of stratified squamous mucous membrane and is formed by multiple, nodular masses of closely packed cells which have the characters of plasma cells, with the typical nuclei of plasma cells and a cytoplasm somewhat atypical in having a muddy eosinophilic staining quality. Russell bodies are present in some of these. There is a minor degree of variation in cell and nuclear size but mitotic figures are not present. There is no evident intercellular stroma but the tumour masses are separated by encircling bands and trabeculæ of fibrous tissue with small blood vessels.

Sections made of the false cords did not reveal any tumour tissue. The pathological diagnosis is extramedullary plasmocytoma of the larynx.

SUMMARY

A case of extramedullary plasmocytoma of the larynx is presented. There was no evidence of the growth in the false cords. The growth was attached to the false cords but had not invaded them. The thyroid cartilage was not involved. The cervical lymph nodes were not enlarged. This is a case where the growth was confined to the soft tissues of the larynx in the region of the anterior commissure, and according to Hellwig there is reason to believe in such a case that a clinical cure has been obtained.

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"The analysis of the genetic basis of emotional behaviour thus remains a field for the future. On its investigation may well depend the acquisition of knowledge of fundamental importance to human education and behaviour. We have neglected such study because of a quixotic and erroneous belief that studying the emotional behaviour or misbehaviour of even young human beings was tabu. The blind and impractical worship of euphonious but sterile dicta of unscientific leaders, who have mistaken 'declarations' of human equality for truth, have too long held us spellbound. All around us are tragic evidences of the evil that uncontrolled or prostituted emotion can create. Our own place in the family of nations has been perilously risked and is still insecure because of this factor which is still abroad in the world. Even the basis of our own emotional control and integrity within the bounds of our national and personal problems is still largely a jungle of ignorance. Expensive social, economic, and educational systems present impressive exteriors but are unsound at the core, because the human beings of which they are made remain largely well-dressed, housebroken savages whose behaviour remains creditable only so long as the strain on it is not too great. There is no reason why emotions cannot be studied and trained as well as intellects, so that the risk of their exploitation and disintegration can be decreased, to the greater security and happiness of all."—"Parental Influence," by C. C. Little, in *Genetics, Medicine, and Man* (Cornell University Press, 1947).