

directly into the tumour by burrowing into it through the normal tissue. In lip and cheek it is inserted from the inside of the mouth, and thus any external scarring is avoided. Frequently special applicators have to be made in order to apply the radium to some particular area.

TYPES OF CASES TREATED

Radium is used in many of our cases post-operatively. In fact in all cases of malignancy of the nose, throat, and mouth in which the patients are treated surgically, they are also treated with radium following the operation. In inoperable cases the possibility of relief from treatment with radium is explained to patients, so they may thoroughly realize that nothing surgical will help, and that just what the radium will do is questionable, although months or even years of relief may be obtained, and possibly the condition may be cured.

In cases suitable for surgical treatment, radium alone is not used as we feel that if the condition is surgical, the patient should be given the benefit of both methods of treatment. Radium should never be employed in lesions such as those of the lower lip, for example, unless they have been diagnosed microscopically. The safer procedure is to excise the lesion for diagnosis, and if it is malignant, the glands of the neck draining the area should be removed in order to prevent metastasis. Many mistakes are made by removing with radium or some treatment other than excision, a lesion of the lip which is malignant, the patient later developing metastasis in the neck with the possibility of cure reduced about fifty per cent.

During the last two years at the Mayo Clinic 211 neoplasms of the nose, throat, and mouth have been treated with radium. These cases are exclusive of the cases of basal lesions of the nose, face, etc. While it is too soon to report end results in this group, I shall, in a general way, outline the results to the present time:

1. NOSE (Intranasal).		3. ANTRUM.	
Epithelioma	9	Epithelioma	9
Papilloma	3	Sarcoma	4
Myxoma	3	Myxoma	1
Sarcoma	1	Fibroma	1
Total	16	Total	15
2. NASOPHARYNX.		4. PHARYNX AND TONSIL.	
Epithelioma	5	Epithelioma	6
Myxoma	3	Sarcoma	4
Fibromyxoma	1	Total	10
Fibrosarcoma	1		
Lymphosarcoma	3		
Malignant Tumour	1		
Total	14		