

# INCIDENCE AND TREATMENT OF CANCER OF THE LIP IN MALTA

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Cancer of the lip is a condition which can be diagnosed at an early stage. If treated efficiently it carries an excellent prognosis. The following is a brief account of its incidence in the Maltese Islands and of the mode of treatment currently being adopted.

The figures given should be factual. They include all patients treated at St. Luke's, at Victoria Hospital, Gozo, and at the two private nursing homes. These were checked against the pathology records at St. Luke's and at the Blue Sisters Hospital and were also checked against notifica-

tions to the Health Department. They cover the 5 year period 1963 to 1967. Only newly diagnosed patients were included; in other words recurrences, even if they were at some distance away from an area which had been treated in previous years, were not included. Also, these figures refer only to true cancers of the lip, i.e., cancers which originate on the vermilion surface of the lip. Many cases notified as cancer of the lip, especially of the upper lip, are, on close examination, found to be cancers of the skin close to and invading the lip. These have all been excluded.

Table 1

Ca LIP  
Incidence by Age and Sex

	M	F	30-39	40-49	50-59	60-69	70-79	80-89	90+	Yearly Total
1963	15	1	0	3	6	3	3	1	0	16
1964	13	3	0	2	3	6	4	1	0	16
1965	16	2	0	2	3	3	8	1	1	18
1966	22	1	1	4	7	7	3	1	0	23
1967	17	0	2	1	3	8	2	1	0	17
Total	83	7	3	12	22	27	20	5	1	90

### Incidence

During this five year period there were 90 new cases diagnosed. *Table I* shows their distribution by sex and age. There is nothing unusual in these figures. The male/female ratio is about 11.1 in favour, or rather, against, men. The highest incidence occurred in the 50's, 60's and 70's. There were only 3 patients below the age of 40. I must however here confess to one inaccuracy. When this table was prepared, I did not include a young lad of 18 who had been referred to me early in 1964 by Professor Craig. This lad had a hard nodule on the right side of the lower lip. Not being convinced that this was a malignant condition, the proper procedure should have been to refer him back to the Surgeon with a view to excision biopsy. Unfortunately, this was not done, and the lip was irradiated halfheartedly. This means that although the full cancericidal dose was given, treatment was limited to a very small portion of the lip just enough to cover the nodule and a few millimeters around it. The lesion gradually softened and eventually cleared up completely. The patient defaulted from follow-up after 18 months and failed to turn up in spite of repeated requests. He reappeared quite recently with a similar lesion just medial to the treated area. This time a biopsy was done and the pathologist reported the lesion as showing 'Carcinomatous change in a labial epidermal cyst'. The patient has now undergone a wide excision of the lip and is well. I do not wish to give the impression that I consider a biopsy to be essential; far from it because diagnosis is us-

ually extremely simple. A biopsy however should always be done whenever there is any doubt. In this series, histological confirmation was obtained in one third of the cases. Almost all the lesions were squamous cell carcinomas; there were only 2 adenocarcinomas originating from the glandular elements of the lip. None were basal cell carcinomas.

Clinically, the majority of lesions presented as the typical "button-like epithelioma". The proliferative cauliflower type of growth was less common accounting for 8% in this series. Cancer of the lip is a moderately slow growing tumour. In our patients, the average interval between the appearance of an ulcer and the date of diagnosis was 9 months. 14% of the patients gave a history in excess of two years.

Lymphnode metastases is nearly always a late feature. In our patients only 6% had clinically involved glands when first seen. This compares well with figures reported from other centres which usually vary from 10 to 15% (Stoll 1952). Distant metastasis was never seen.

Ninety cases over a five year period gives an average incidence of 18 new cases every year. If we take our population as been 300,000, we therefore have an incidence of 6 per 100,000. This is a comparatively high figure when compared to other parts of the world. Most of the figures have been obtained from a Monograph called "Cancer incidence in five continents". In Asia and Africa the condition is almost nonexistent, whereas in the Northern Provinces of Canada, can-

cer of the lip is extremely common (9 per 100,000). Malta comes second in the list (6 per 100,000). Investigation into possible aetiological factors has not been profitable. None of our patients had ever smoked clay pipes; only five of them were wooden-pipe smokers. The majority were moderately heavy cigarette smokers, but no more so than the general healthy population. 75% of the patients held, or had held for many years, fulltime outdoor occupation, and the commonest incidence was in farmers, fishermen and stonemasons.

This would appear to confirm that excessive exposure to actinic rays plays an aetiological part. It would be interesting to have statistics from Sicily, Cyprus and other central Mediterranean areas to see how they compare. The fact that many of the patients gave a long history of cracked, scaly lips prior to the development of ulceration suggests that the actinic rays themselves do not directly cause cancer, they act as a chronic irritation which provokes a constant reparative process. At some stage, this controlled reparative process breaks down, and the autonomous "angry" cancer cells take over.

### Treatment

It has been repeatedly shown that cancer of the lip is a curable disease. Equally good curative results have been obtained both by surgery and by radiotherapy. It is a popular belief that radiotherapy should be preferred because it gives a better cosmetic result. This is true in most cases but not always. For the small early lesion, a wedge resection gives an

excellent cosmetic result and this is also true for the more advanced lesions but only if one has facilities for good plastic repair. The cosmetic results obtained by radiotherapy are usually good but are not always as good as we would like to believe. Some years after irradiation, it is not unusual to see deformity due to fibrosis and also patches of telengectasis. Where radiotherapy scores over surgery is in the treatment of a carcinoma of the lip when the rest of the lip shows premalignant changes such as hyperkeratosis and leucoplakia. In such cases, one can easily treat the whole of the lower lip and prevent recurrences or fresh lesions from developing at a later date. From an analysis of the results of the 90 cases under review, I would conclude that Surgery should always be preferred in the case of the young patient with an early lesion without premalignant changes around it. For the older patient surgery and radiotherapy are equally efficient but if radiotherapy is to be done, treatment should always be directed to take in the whole of the lip.

Table II shows the treatment modality employed in our 90 patients. The swing to radiotherapy is quite impressive. All the 53 patients who had radiotherapy were treated by external irradiation using 140Kv X-rays with filtration to give a half value layer of 8 mm al. The dose given was 4500r to 5000r in 2 weeks. Fig. 1 is a drawing of the technique used. A piece of lead is placed between the inner aspect of the lip and the gums and another piece of lead with a cut-out is placed in front of the lip. This limits the beam of X-rays to

Table 2

YEAR	RADIOTHERAPY	SURGERY	SURG. & RAD.
1963	1	15	0
1964	9	7	0
1965	13	4	1
1966	16	6	1
1967	14	3	0
TOTAL	53	35	2

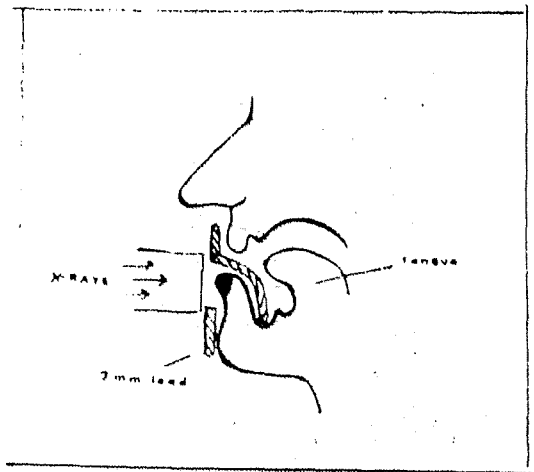


Fig. I

the requisite size. Fig II shows a patient set up for treatment. The lead cut-out allows the whole lip to be treated while protection is afforded to the surrounding skin, the gums, and the oral cavity. This is most important as we are all aware of the damaging results which may follow irradiation of the oral cavity. This is well seen in Fig. III. Apparently the degeneration is not due to a direct effect of the ionizing rays on the teeth but is a consequence of a diminution in the amount of saliva, and a change in its chemical composition. None of our patients were treated by the application of radioactive sources. This method as practised in Manchester

is probably superior to treatment by X-rays in that it gives equally good curative results and better cosmetic results. Unfortunately, however, it is time-consuming and it increases the radiation hazards to the staff. With X-rays therapy, at the end of treatment, the patient develops quite a severe radiation reaction, the lip becomes swollen, raw and uncomfortable. A white membrane forms over the vermillion surface and this becomes covered over by a crust. It usually takes about 3-4 weeks before the crust falls off and healing becomes complete. The application of a 2% sol. of Gentian Violet seems to protect the lip and hasten the healing process. Patients are then followed up at monthly intervals for the first six months, 2 monthly intervals for the next six months 3 monthly intervals for the next two years, and then six monthly indefinitely.

### Results

53 patients were treated by radiotherapy alone. At the end of 1 year 50 (94%) were alive and showed no evidence of residual disease. Two had died with residual disease at the primary site and with metastasis in glands. These two were old patients who had presented with advanced disease which was deeply penetrating into the alveolar sulcus and involved the jaw (Fig IV). The third patient had a large proliferative type of growth (Fig V), which was extremely radiosensitive and melted

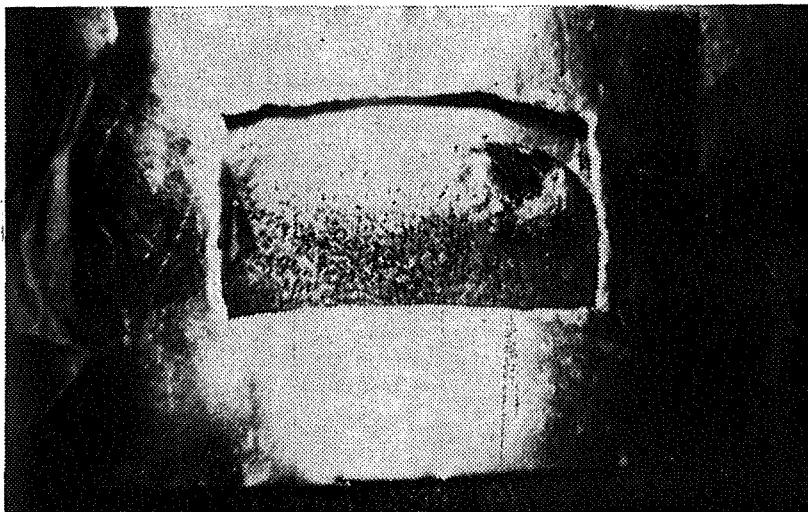


Fig. II



Fig. III



Fig. IV



Fig. V

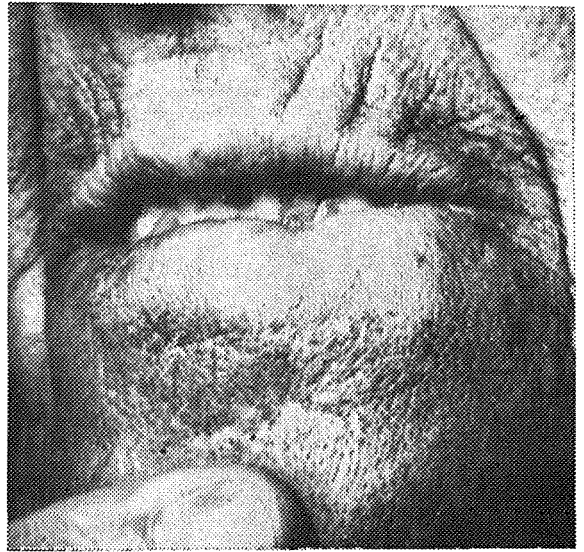


Fig. VI

away during treatment (Fig VI). Unfortunately she defaulted from follow-up and turned up after 4 months with fixed submental glands. A submental block dissection was done but this was incomplete and she died shortly afterwards with fungation in the neck and through the floor of the mouth.

None of the patients have been lost sight of. So far there has only been one other death but this was from an unrelated cause. Only one recurrence at the primary site has occurred and this was in the upper lip. One other patient, who originally had only had one side of his lip

treated, has had to have treatment on the other side for an early lesion. The numbers are too small and it is too early yet to try to analyse the 3 year and 5 year results but it is anticipated that these will be good. It has been shown that recurrences, if they are to occur usually do so within the first three years.

### References

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