NASOPHARYNGEAL CARCINOMA WITH HYPERTROPHIC PULMONARY OSTEOARTHROPATHY

By Toh Ban Hock, M.B.B.S.
(Department of Medicine, University of Singapore)

While pulmonary osteoarthropathy is commonly seen with primary carcinoma of the lungs, it is very rarely associated with secondary carcinoma of the lungs. Aufses and Aufses (1960) reported 28 cases of pulmonary osteoarthropathy with lung metastases in a review of the world literature but did not include any case of a primary carcinoma originating from the nasopharynx.

Martin (1939) was the first to note the association of nasopharyngeal carcinoma with pulmonary osteoarthropathy. He described 2 cases both of whom had no evidence of metastases in the lungs at the time of presentation, although one 5 months later developed an upper mediastinal mass. Papvasiliou (1963) has recently described 3 cases of nasopharyngeal carcinoma with pulmonary osteoarthropathy and hilar metastases, in which both the osteoarthropathy and hilar metastases responded to radiotherapy of the hilum.

CASE REPORT

A 40 year old Chinese sailor was first seen at Thomson Road General Hospital on 5.5.66 with a history of a lump on the left side of the neck for two months. A biopsy taken then revealed a metastatic undifferentiated carcinoma (Figs. 1 & 2). Examination by the Ear, Nose and Throat surgeon revealed a small suspicious looking mass above the left eustachian cushion. Biopsy of this mass revealed a nasopharyngeal carcinoma. He was then given a 3 months' course of deep X-ray therapy.

Two months after completion of radiotherapy he complained of pain over both knee joints and legs, and examination revealed clubbing of his fingers and toes (Figs. 3 & 4), pitting oedema of both legs and an effusion in both knee joints. Investigations revealed an erythrocyte sedimentation rate of 86 mm./hour with subperiosteal new bone formation over the tibia and fibula of both legs (Fig. 5).

An X-ray of the chest revealed a suspicious enlargement of both hilar shadows (Fig. 6) and hilar tomography confirmed the presence of secondaries in the hilar region (Fig. 7). A dia-

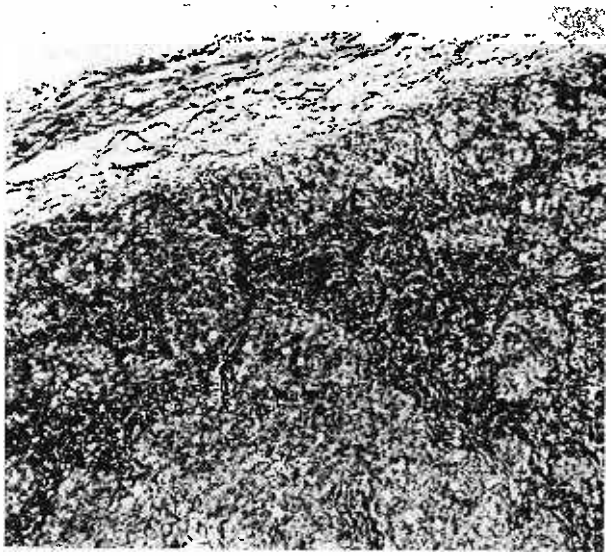

Figure 1.

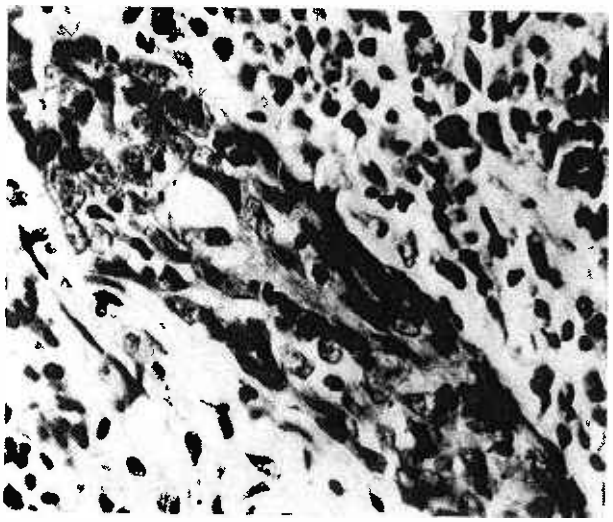

Figure 2.

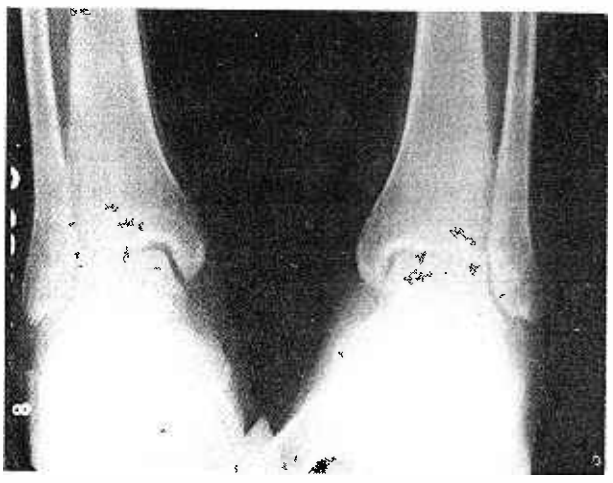

Figure 5.

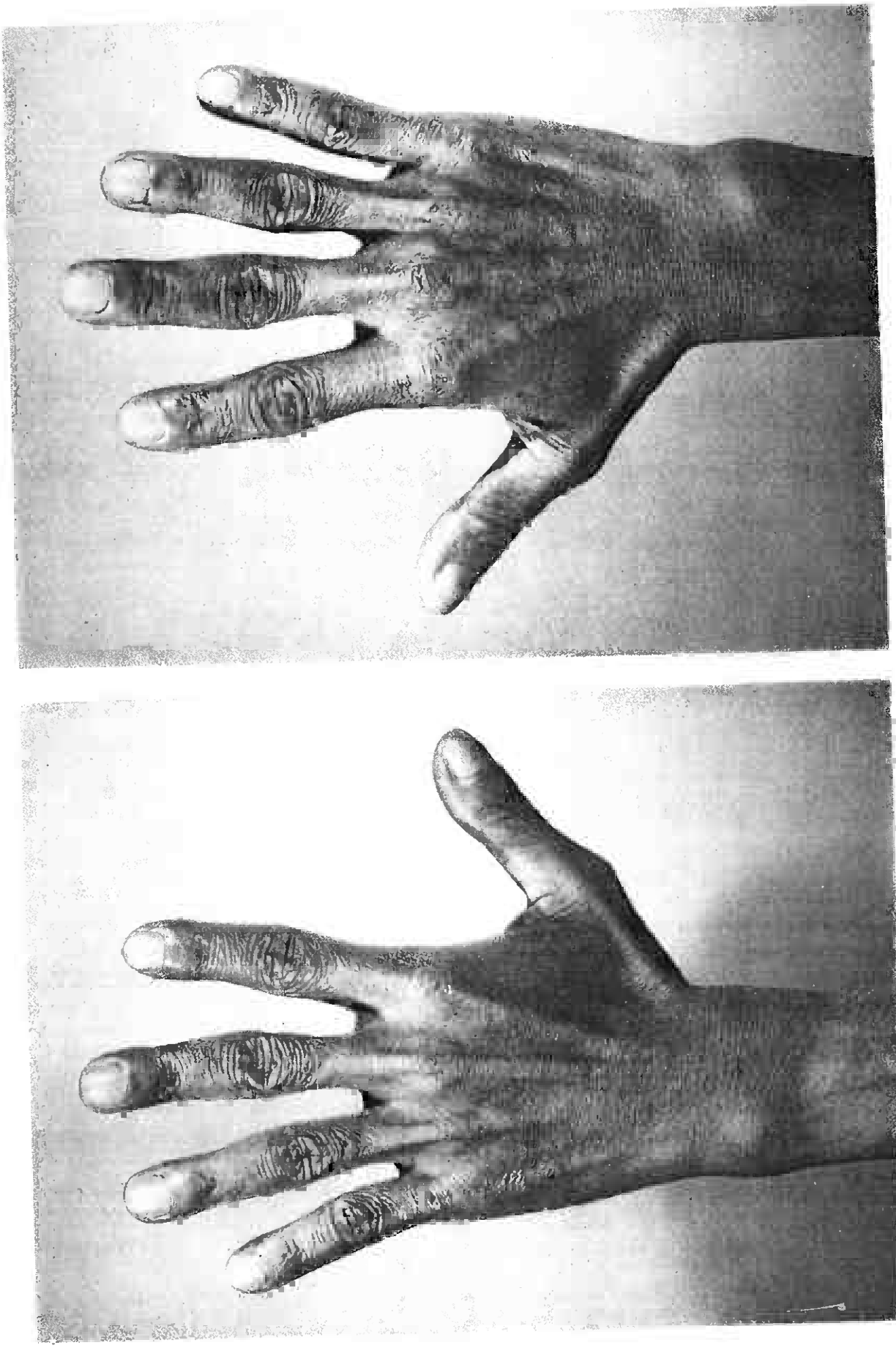

Figure 3.

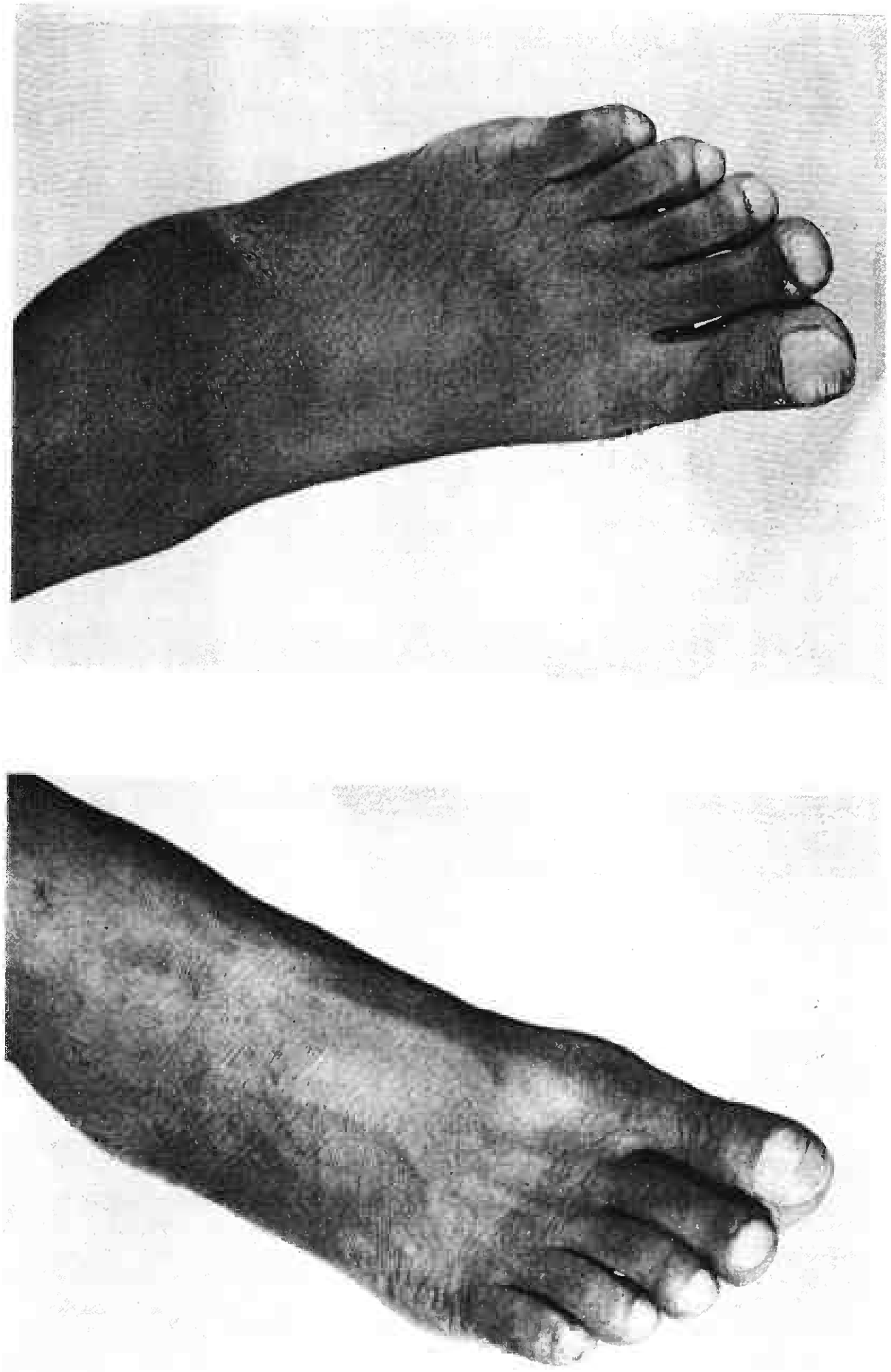

Figure 4.

8 cm.

9 cm.

Figure 7.

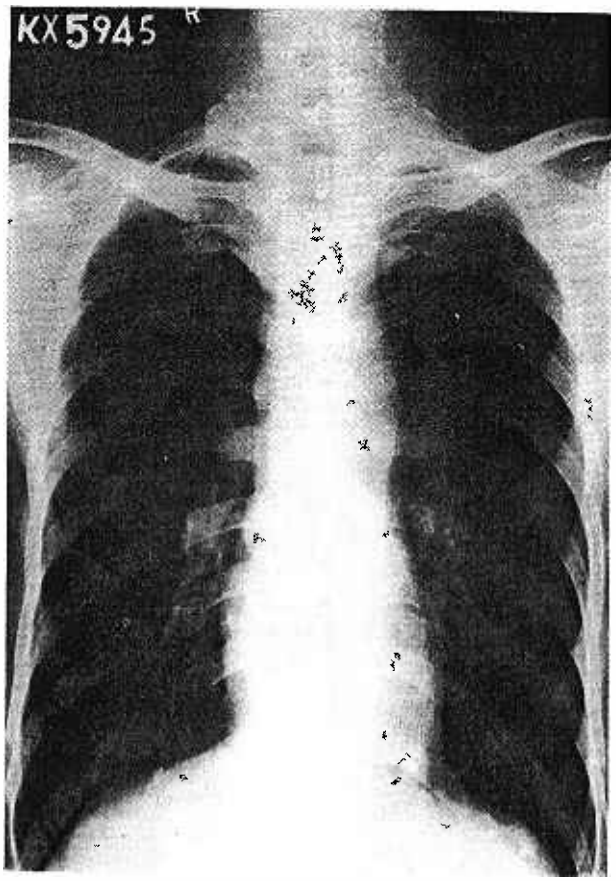

Figure 6.

gnosis of nasopharyngeal carcinoma with pulmonary hilar metastases and hypertrophic osteoarthropathy was therefore made, and the patient referred for irradiation of the hilar region.

DISCUSSION

As in the patients reported by Papavasiliou (1963), our patient not only developed pulmonary hypertrophic osteoarthropathy after irradiation of the primary tumour in the nasopharynx but also had secondaries in both hilar regions and not peripherally in the lungs. This is contrary to previous reports that with pulmonary osteoarthropathy, the tumour whether primary or secondary is situated peripherally in the lungs (Ray and Fisher, 1953; Huckstep and Bockin, 1958; Aufses and Aufses, 1960).

Jaffee (1964) has recently reported 2 cases of pulmonary osteoarthropathy associated with nasopharyngeal carcinoma, one of whom had lung metastases. This patient had surgical resection of the metastatic lung tumour and vagotomy with good symptomatic results although he finally succumbed to the disease.

Papavasiliou in contrast treated his 3 patients with irradiation and he reports good symptomatic results following this with radiological clearing of the lung secondaries and disappearance of the thickening of the periosteum.

SUMMARY

A case of pulmonary hypertrophic osteoarthropathy appearing after deep X-ray therapy of the primary tumour in the nasopharynx is described and the clinical features and treatment are discussed.

ACKNOWLEDGEMENTS

I wish to thank Professor G. A. Ransome for permission to publish this report, to Dr. E. Hanam for her encouragement and the Departments of E.N.T. and Pathology for their co-operation.

REFERENCES

1. Aufses, A.H. & Aufses, B.H. (1960): "Hypertrophic osteoarthropathy in association with pulmonary metastases from extra thoracic malignancies", Dis. Chest 38, 399.
2. Huckstep, R.L. & Bodkin, P.E. (1958): "Vagotomy in hypertrophic pulmonary osteoarthropathy associated with bronchial carcinoma", Lancet 2, 343.
3. Jaffee, I.S. (1964): "Nasopharyngeal carcinoma", Archives of Otolaryngology. 80, 450.
4. Martin, C.L. (1938): "Complications produced by malignant tumour of the nasopharynx", Amer. J. Roentgen., 41, 377.
5. Papavasiliou, C.G. (1963): "Pulmonary metastases from cancer of the nasopharynx associated with hypertrophic osteoarthropathy", Brit. J. Radiol., 36, 680.
6. Ray, E.S. & Fischer, H.P. (1953): "Hypertrophic osteoarthropathy in pulmonary malignancies", Ann. Intern. Med., 38, 239.