

METASTATIC TUMOUR IN CALF MUSCLE FROM CARCINOMA OF CERVIX

by

KASTURI LAL,* B.Sc., M.S., D.G.O.

Metastatic carcinomas are more likely to involve a skeletal muscle by direct extension from an adjacent tumour. The blood borne metastasis in the skeletal muscle from a distant tumour are rare. Even rare is the occurrence of a solitary metastasis in the skeletal muscle from a primary squamous cells carcinoma of cervix.

CASE REPORT

K, aged 50 years, married, attended the Gynaecology out patient clinic of Wanless Hospital, Miraj, for the first time on 16-4-1968 for bleeding per vaginum, white discharge, pain in lower abdomen, backache and difficulty during micturition for the last three months. She gave history of loss of appetite and constipation off and on. The patient attained menopause seven months ago. Her previous cycles were regular. She had eight full term normal deliveries, last child six years ago.

On examination, the patient was averagely built and nourished. She was anaemic. Systemic examination did not reveal anything abnormal. Vaginal examination revealed a cauliflowerlike growth involving both lips of cervix. There was infiltration of the parametrium on the left

side. Uterus was retroverted, normal in size, mobile. On speculum examination a friable growth was seen. Rectal examination revealed that the rectal mucosa was free, cancerous infiltration in the parametrium on the left side upto the lateral pelvic wall. The case was diagnosed as carcinoma of cervix stage III.

INVESTIGATIONS

Haematological examination revealed anaemia, slight increase in neutrophils. X-Ray of the chest was normal. Cystoscopy did not reveal any abnormality. Cervical Biopsy revealed poorly differentiated squamous cell carcinoma (Fig. I).

The patient was treated in the radiotherapy department. She was admitted in the cancer ward on 18-5-1968 for general weakness and anaemia and was discharged after symptomatic treatment. She was seen on 1-8-1968, for a localized swelling in the right calf muscle. Biopsy of the swelling showed metastatic tumour (Fig. II and III). She was discharged with advice to have radiotherapy to calf muscle. She was admitted on two occasions subsequently for widespread metastasis and her condition deteriorated rapidly. She was discharged against 'medical advice in terminal stage.

Discussion

The distribution of blood borne metastatic tumour displays many curious vagaries. Thus, a carcinoma which will frequently yield metastasis in lungs, liver and bone, in rare cases it yields

*Department of Obstetrics and Gynaecology, Wanless Hospital, Miraj.

Present address—

Reader, department of Obstetrics and Gynaecology, Medical College, H.M.O., Gynaecologist, Govt. General Hospital, Gulbarga.

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metastasis to skeletal muscle which is equally accessible to tumour emboli. In view of the large aggregate blood supply of the entire musculature of the body, this paucity of metastatic tumour indicates the unsuitability of muscular tissue as a soil for the growth of arrested tumour emboli. The rarity of metastatic growths in skeletal muscles may depend in some way on the special characters of the metabolism of muscle in which lactic acid which is also an important product of some cancer cells plays such a prominent part. The relative immunity of certain systemic tissues from metastasis has been attributed to traversal of their capillaries by unarrested tumour cells. The rarity of metastatic growths in the skeletal muscles, heart, spleen and muscular coats of hollow viscera has been attributed to the movements of these tissues, the implication being that small tumour emboli are massaged through the capillary channels to enter the venous circulation.

It is probable that metastatic tumours in muscles are usually multiple. In almost all cases the responsible neoplasms are of rapidly growing anaplastic character with numerous metastasis in other tissues. The primary tumours as quoted by Willis (1952), include melanoma (Calvert and Pigg, 1908, Reimann 1902, Goforth 1926). Carcinoma of the kidney (Albrecht 1905, Bauer 1911). Carcinoma of the lung (Handforth, 1888; Atkin, 1931) and other tumours (Bock, 1883; Lawson, 1885. Von Recklinghausen, 1885; Rolleston, 1899; Symmers, 1917; Von Hippel, 1927; Cords and Eigel, 1927; Ficari 1950). Willis (1952) had done 500 necropsies. He saw discrete metastasis in muscles on four occasions, two from carcinoma of thyroid and one each from carcinoma of external ear and pharynx.

The muscles in which growths have most frequently been found are those of the abdominal wall, the pectoralis, deltoid, psoas and the muscles of the thighs. In Bauer's case and in one of the cases reported by Willis metastasis were present in many different muscles. Ficari reported a remarkable case of lymphosarcoma with multiple large metastases in various muscles. Squamous cell carcinoma usually spreads by lymphatics. The tumour emboli liberated in systemic veins are arrested in the lungs. Some apparent anomalies in metastasis are explained by (1) retrograde venous embolism, (2) paradoxical or crossed embolism and (3) uninterrupted transpulmonary passage of tumour cells.

Summary

1. A case of squamous cell carcinoma of cervix with metastatic tumour growth in the calf muscle is presented.
2. Possible reasons for the rarity of such metastatic growths is discussed.
3. Literature on metastatic skeletal muscle carcinoma is briefly reviewed.

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See Figs. on Art Paper V-VI