PRIMARY MALIGNANT MELANOMA

(A Case Report)

by

N. KISHORE,* M.S., F.A.C.S.,

V. L. LAHIRI,** M.D., M.I.C.A.,

B. SARKAR,*** M.S.

and

ARUN NAGRATH,**** M.B.B.S.

Primary malignant melanoma of the vagina is an extremely rare tumour. Only 46 patients have been reported in literature, of which 36 fulfil the necessary diagnostic criteria (Laufe *et al*, 1971). The criteria put forward by the above workers are:

1. Intra- and extra-cellular melanin.
2. Junctional activity.
3. Extreme pleomorphism of cells.
4. Presence of hyperchromatic atypical nuclei.
5. Band like inflammatory cells infiltreating beneath the lesion in early tumours.

Histogenesis

The origin of the malignant melanoma of the vagina is controversial. Meyer postulated that human vagina developed from the urogenital sinus which normally contains pigment. Probably, on the same basis Ariel (1961) believed that pigment bearing neoplasms could arise from the vaginal tissue. Nicholson (1936) on the other hand could find that under abnormal conditions mesoderm can acquire ectodermal characteristics. Even Ewing (1942) elaborated this and was of the opinion that neoplastic alterations were influenced through the sympathetic nervous system. Mino *et al* (1948) suggested that vaginal melanomas could arise from embryologically misplaced chromatophores of epithelial or mesoplastic origin. He also postulated the possibility of their origin from epithelial cells of superficial nerves or vessel trunks. Willis (1953) on the other hand believed that melanomas arise from mesoplastic elements such as those of the skin. Brezinsky *et al* (1950), however, were of the view that melanoblastic epithelium could arise from heterotrophic epidermis in the vaginal mucosa. Allen and Spitz (1959) proposed that melanomas of the mucous membranes are activated junctional naevi. Batsakis and Dito in 1962 confirmed the presence of melanin pigment and melanocytes in normal vaginal mucosa. Gupta *et al* in 1964 suggested that melanoblastic epithelium in vagina is present either as a result of developmental heterotopia or

* *Professor and Head of the Department of Obstetrics & Gynaecology.*

** *Professor, Department of Pathology and Bacteriology.*

*** *Lecturer, Department of Obstetrics & Gynaecology.*

**** *Registrar, Department of Obstetrics & Gynaecology.*

S. N. Medical College, Agra.

Accepted for publication on 21-2-76.

actual metaplasia. They also pointed out the possibility of it being normally present because of juxtacutaneous epithelium forming the pigment.

CASE REPORTS

Patient named T.B., 45 year old Muslim woman was admitted on 11-4-75 with complaints of irregular vaginal bleeding and altered vaginal discharge for the last one year. Examination of the vagina revealed firm, brownish black, nodular growths, the uppermost on the posterior fornix, two growths in the middle half of the vagina and the lowermost just at the introitus in relation to the urethra on the anterior vaginal wall. Vulva was normal and no abnormality was detected on a bimanual examination. No inguinal lymph nodes could be palpated. The haemoglobin was 11 Gm.% and other haematological and relevant biochemical values were within normal limits. No abnormality was detected in the X-Ray of the chest.

Biopsy Report: (30-8-74)

Biopsy pieces are lined by irregularly thickened squamous epithelium. The subepithelial connective tissue shows a highly cellular tumour comprising of rounded, ovoid or elongated cells with deeply stained nuclei and scanty cytoplasm. The cells show marked degree of anisocytosis and anisonucleosis. Many cells are loaded with melanin pigment.

Diagnosis: Malignant Melanoma.

Operation Notes

An abdominal panhysterectomy with total colpectomy was done. One node situated on the anterior vaginal wall was very close to the urethra and therefore could not be dissected per abdomen. A local excision was done vaginally.

Postoperatively an in-dwelling catheter was kept and the patient was put on intravenous fluids for 3 days following which fluid and semisolid low residual diet was allowed. She was kept on prophylactic antibiotics.

Her postoperative recovery was uneventful and the stitches were removed on the seventh postoperative day. She was discharged on 7-5-75 in a satisfactory condition.

Biopsy Report

GROSS: Panhysterectomy specimen with 5.5 cm. long cuff of the vagina. The uterus, adenexa and cervix appear normal on gross examination. In the vaginal flap on the mucosal surface there are 3 blackish raised nodules situated on the posterior wall 2 cm. from the os, in the left angle of the fornix and one on the anterior surface measuring 2 cm. X 2 cm., 0.8 X 0.6 cm. and 0.4 X 0.4 cm. respectively. The mucosa cannot be moved over there. The margin of resection is free on gross examination.

MICROSCOPIC: The tumour consists of closely packed collections of round, ovoid or polyhedral cells in the subepithelial tissue supported by very scanty stroma. The cells have very large nuclei. Normal and abnormal mitotic figures are seen. Fine pigment granules are seen in occasional cell and these stain for melanin. The uterus, cervix, adenexa, and resected lymph node and resected end of the vagina are free from tumour infiltration.

Comments

Despite the various types of therapies used for these cases, the prognosis is poor till now. Surgical treatment varies from simple local excision to total colpectomy, hysterocolpectomy and extensive block-dissection.

Radiation therapy by the use of locally implanted needles and radioactive substances like Phosphorus (P^{32}) and Gold have also been used.

A chemotherapeutic approach involving the use of a drug named Demopoulous has also been used but the extent of regression of the tumour mass by the use of this drug alone is still doubtful.

Survival Rate

Of the cases reported, the largest series is that by Henry and Herbert. Out of the 11 cases in which melanin could be demonatrated the median survival rate was 10 months and 10 of these patients had died of metstatic melanoma. The longest survival was living with pulmonary metastases 6.2 years after surgery. Only 3 patients survived for more than 2 years.

Laufe and Berustem (1971) have stat-

ed that death from the disease occurs at an average between 6 and 12 months from the onset of the first symptoms. Average survival time in cases treated by local excision is 9 months and this was increased by another 2 months when radiation was added. Following radical operation three patients (7 per cent) had survived for more than 5 years.

Summary

A case of malignant melanoma of the vagina treated by panhysterocolpectomy is presented. At the last follow up i.e. about one year after detection of the lesion the patient shows no evidence of secondaries and is asymptomatic.

References

1. Allen, A. C. and Spitz, S.: Arch. Dermat. Syph. **69**: 150. 1959.
2. Ariel, I. M.: Obst. & Gynec. **17**: 222, 1961.
3. Ariel, I. M.: Amer. J. Obst. & Gynec. **82**: 405. 1961.
4. Batsakis, J. G. and Dito, W. R.: Obst. & Gynec. **20**: 109, 1962.
5. Brzezinsky, A., Bromberg, M. and Laufer, A.: Amer. J. Cl. Path. **20**: 774, 1950.
6. Ewing, J.: Neoplastic diseases. Fourth edition Philadelphia. W. B. Saunders Co., 1942.
7. Gupta, J. C., Jungalwala, B. N. and Arora, M. M.: J. Obst. & Gynec. Brit. Cwelth. **71**: 801, 1964.
8. Laufe, L. E. and Bernstein, E. D.: Obst. & Gynec. **37**: 148, 1971.
9. Mino, R. A., Mino, V. H. and Livingston, R. G.: Amer. J. Obst. & Gynec. **56**: 325, 1948.
10. Mino, R. A., Livingston, R. G. and Hynes, J. F.: Ann. West Med. Surg. **6**: 648, 1952.
11. Nicholson, G. W.: J. Path. & Bacteriology. **43**: 209, 1936.
12. Willis, R. A.: Pathology of tumours. St. Louis, Mo CV Mosby & Co., 1953.

See Figs. on Art Paper IV