CHONDROID SYRINGOMA
(Mixed Tumour of Skin - Salivary Gland Type - Report of four cases)

R. L. SOLANKI * I. N. RAMDEO † A. K. GOYAL ‡

Summary

Chondroid syringoma of skin is a very uncommon, benign tumour consisting of pleomorphic cellular components, viz. large dilated cystic branching duct with myxoid stroma and pseudo cartilage. They originate from apocrine or eccrine sweat glands. The present communication deals with reports of four cases of chondroid syringoma of which three occured at uncommon sites. Histochemical findings in these tumours are also described which are identical to those seen in pleomorphic salivary adenoma.

Mixed tumors of skin has been a subject of curiosities for surgeons, dermatologists and pathologists for many years. Nasse[1] has generally been regarded as having described the first case of mixed tumors of skin in 1892. Since then over 300 cases have been described in World literature. Lennox and associates[2] in 1952 reviewed 55 cases of mixed tumor of skin and added 11 of their own. Stout and Gorman[3] analyzed 39 cases of their own in a period of 53 years and reviewed 95 cases in the literature. These 95 cases reviewed included 49 of the 55 cases described by Lennox[2]. Hirsh and Heling[4] collected 188 cases of mixed tumors of skin, reviewed them thoroughly and termed this tumor as Chondroid Syringoma – a term which has been retained in histological typing of skin tumors of W.H.O.[5]

Department of Pathology and Microbiology,
Sardar Patel Medical College,
Bikaner (Raj)

* Lecturer in Pathology
† Reader in Pathology
‡ Demonstrator in Pathology

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There have been very few case reports of mixed tumors of skin from our country.[6,7,8,9] The rarity and unusual clinicopathological features of this tumour has prompted us to report four cases of Chondroid Syringoma registered in the deptt. of S. P. Medical College, Bikaner.

Material and Method :

In a period of seventeen years from 1969 to 1976 we have received 22 tumors of sweat gland origin, of which four were diagnosed as mixed tumors of skin. The paraffin sections from all four cases were stained by haematoxyline and eosin, PAS, PAS with diastase, alcian blue, muci carmine and toluidine blue stains. Clinical features, gross findings and microscopic appearance in all these cases were studied.

Results :

Table No. 1 shows clinicopathological features in all four cases of mixed tumor of skin. Of these four cases, three were in male and one in female. Age in these patients ranged from 40 years to 60 years with a mean age of

TABLE 1

Showing salient clinical features in four cases of chondroid syringoma

Case Nos.	Age in years	Sex	Site	Size	Clinical diagnosis	Type
1	40	M	Scrotum	4×4 cm	Neurofibroma	Apocrine
2	40	M	Left Arm	4×3×2 cm	Neurofibroma	Apocrine
3	60	F	Rt. Cheek	1.5×1 cm	Epithelioma or Neurofibroma	Apocrine
4	48	M	Lt. Thigh	2.5×1.5 cm	Fibroma	Apocrine

52 years. One case each was seen over face, left arm, left thigh and scrotum. Clinically all these cases were either diagnosed as neurofibroma or epithelioma. Duration of symptoms at the time of hospitalization ranged from 6 months to 20 years. Ulceration was seen in only one case and it was clinically diagnosed as epithelioma (Case No. 3).

Gross Appearance :

The size of gross specimens ranged from 1.5 x 1 centimeter to 4 x 4 centimeter. The tumor masses were firm to hard in consistency and situated just underneath the skin. Cut surface of these tumors was greyish white in color and showed varied areas of chondroid and myxoid tissues with small cystic spaces.

Microscopic Features :

Micro section from all these cases composed of a mixture of epithelial and mesenchymal tissues. The tumor exhibits irregular dilated cystic spaces lined by two layers of epithelial cells. The cells projecting in lumina are cuboidal shaped and those on periphery were flattened cells, embedded in an abundant myxoid stroma. The lumina showed the presence of eosinophilic, homogenous structureless material (Fig. No. 1). Within the basophilic mucoid stroma it also shows small and large aggregates of epithelial cells without lumina (Fig. No. 2). At places it gives an appearance of stroma resembling that of cartilage (Fig. No. 3). No evidence of malignancy could be seen in these cases.

The mucoid stroma stained positively with PAS, PAS with diastase, alcian

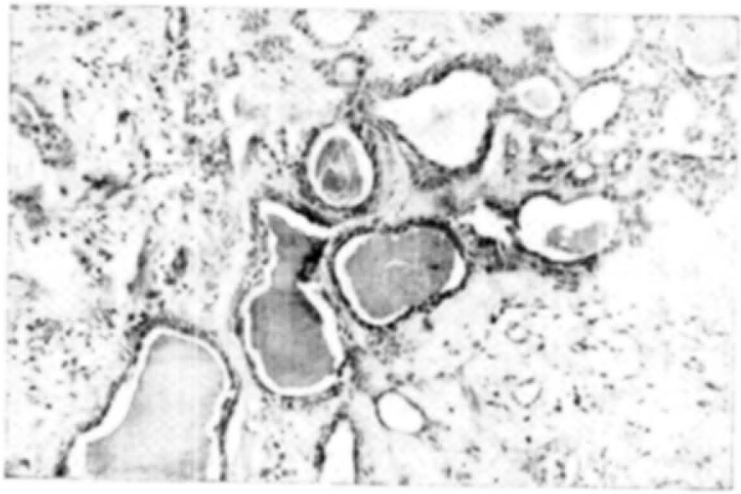

Fig. 1 Shows irregular dilated cystic spaces lined by epithelial cells and filled with epithelial mucin. H & E x 100

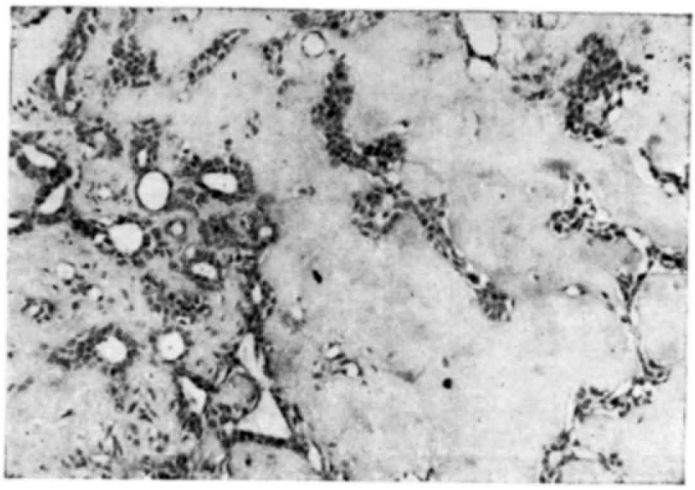

Fig. 2 Shows presence of aggregates of epithelial cells without lumina with mucoid stroma appearing as pseudo cartilage. H & E x 100.

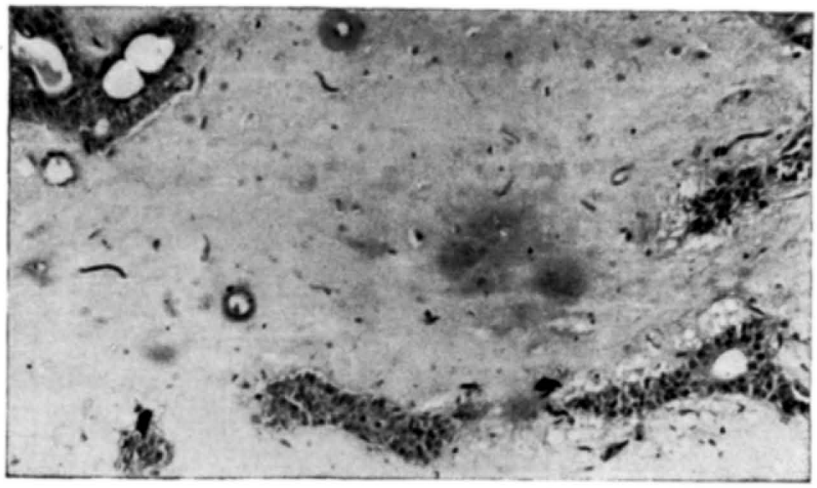

Fig. 3 Shows an area giving an appearance like cartilage with clusters of cells and two small ducts lined by two types of epithelial cells.

blue, mucicarmine and also stained metachromatically with toluidine blue. The epithelial mucins also stained positively with PAS, DPAS, alcian blue and mucicarmine but did not give a metachromatic reaction with toluidine blue.

Discussion :

Chondroid Syringoma (Benign mixed tumors of skin of salivary gland type) arises from the duct of apocrine or eccrine sweat glands and is very uncommon. Histologically two types of mixed tumors of skin has been described, one with tubular and cystic, partially branching lumina (Apocrine origin) and the other with small regular tubular lumina (Eccrine origin).[10]

The mixed tumors of skin occurs commonly in fifth decade. Mixed tumors

of skin occurs most commonly on the head and neck region. Of the 188 cases reviewed by Hirsh and Helwig[4] 150 cases occured in head and neck region, with only 11percent involving extremities and genitalia. Three cases in the present series occured on extremities and genitalia and only one on face. The males were affected thrice more commonly than the females. Similar observation was made by other workers.[4]

All the four cases of mixed tumors of skin in our series were of apocrine type, characterised by large tubular, cystic branching lumina with abundant myxoid stroma at places giving a pseudo cartilage appearance and small and large aggregates of epithelial cells resembling myoepithelial cells without lumina. Headington[10] could find only six authentic cases of eccrine chondroid syringoma in World literature which included four of his own. The rest were of apocrine type.

Histochemical reaction with PAS, DPAS, alcian blue, mucicarmine and toluidine blue for epithelial mucin and connective tissue mucin were closely identical with that of pleomorphic salivary adenoma. The stroma contained acid mucopolysaccharide since it stained with PAS, alcian blue, mucicarmine and metachromatically with toluidine blue. This acid muco – poly – saccharide is largely sulfated i. e. chondroitin sulfate because the staining reaction is not affected by predigestion with hyaluronidase[4].

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