A CASE OF CUTANEOUS MELANOMA IN A BULL

N. Pazhanivel, R. Ezakial Napolean, B. Murali Manohar and U. Ravi
Veterinary University Training and Research Centre, Gundalapatti, Dharmapuri - 636 703, Tamil Nadu, India

ABSTRACT
Cutaneous melanoma in Alambadi bull was reported.

Melanoma is most frequently reported in the dogs and horses (Cotchin, 1956; Moulton, 1961) among domestic animals. It has also been reported in bovines (Head, 1953; Monlux et al., 1956 Cotchin, 1960; Anderson et al., 1969; Sivadas et al., 1971; Ramakrishnan and Murali Manohar, 1980; Ganesh et al., 1990). Moulton (1978) has reported an incidence of less than 2 per cent of melanomas in cattle out of all bovine neoplasms while Ramakrishnan and Murali Manohar (1980) recorded 5.1 per cent of melanomas out of 2728 bovine neoplasms. The present report puts on record the occurrence of cutaneous melanoma in an Alambadi bull.

An Alambadi bull aged about 3 years was brought to the veterinary hospital, Pennagaram, Dharmapuri, Tamil Nadu for excision of the hard mass which was seen at the dewlap region just infront of the brisket region. On examination, the mass was hard, brownish black in colour and was covered by skin showing few areas of laceration (Fig. 1). Surgically excised mass was roughly spherical about 12 cm in diameter and weighed about 1000 gms. On incision the cut surface was brownish black in colour with scattered greyish white areas. Overlying skin was intact. Tissue pieces were collected at random from multiple areas from this mass and immediately fixed in 10 per cent formal saline. Tissue pieces were processed by routine procedures and thin sections of about 6m thickness were cut and stained with Haematoxylin and eosin.

Microscopical examination revealed sheets of neoplastic cells extending from the dermis to subcutis (Fig. 2) were separated by collagenous fibrous stroma. Neoplastic cells were of varying size and shape, roughly polygonal or ovoid angular and fusiform in shape. The cytoplasm contained varying quantities of brownish black melanin pigments. The nuclei of neoplastic cells were roughly spherical or oval, vesicular with margination of chromatin along the nuclear membrane with prominent nucleoli. In some cells, the nuclei were completely masked by brownish black pigments. The tumor was diagnosed as melanoma based on the histological features.

Ramakrishnan and Murali Manohar (1980) recorded melanoma in 139 (5.1 per cent) cattle out of 2728 bovine neoplasms, of which 76.9 per cent were in males. They have also observed the neoplasm occurring mostly in animals of 3 years and above (76.2 per cent). They have also recorded benign tumour in 92.1 per cent of cases. Similarly, the present case of melanoma was recorded in a 3 ½ year old bull, which was in accordance with earlier observation. Fugiwara (1956) reported 2 cases of melanomas in two Japanese black cattle developing from the hypodermis of the neck and root of the ear respectively. Ganesh et al. (1990) reported 2 cases of melanomas originating from the neck and brisket regions in a cow and she buffalo respectively. In the present case, the tumor was seen originating from the dermis and extending into the subcutis. Head (1953) and Cotchin (1960) have
Fig. 1. Alambadi bull showing roughly spherical tumour mass on the ventral side of the neck just infront of the brisket region.

Fig. 2. Growth showing the neoplastic cells containing brownish black pigments seen extending from the hypodermis to subcutis HE x 80.

also reported that a significant proportion of melanomas originated from cutaneous and subcutaneous region.

REFERENCES