A Rare Case of Dermal Melanocytoma in Mehsana Buffaloes
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Abstract
A case of Dermal Melanocytoma in a Mehsana buffalo and its management has been reported.
Key words: Melanocytoma, Histopathology, Buffalo.

Introduction
Melanocytic tumors usually account for 5-6% of all tumors in surveys of bovine neoplasm and occur most commonly in the skin. A disproportionate number of reported cases have occurred in India, where predominantly gray cattle were affected.

Case History and Clinical Observation
A thirteen years old Mehsana buffalo in her sixth lactation with a swelling on thigh region below point of hip since last eight month was presented to veterinary Mobile Clinic. In physical examination, an abnormal large (4 inch in diameter) painful swelling on thigh region below point of hip was observed. Abscess resolved after ripening by massage of Iodine ointment in 15 days, leaving a small surface area 1 to 1.5 inch in diameter of lukoderma. After 2 months granular masses started to develop on the periphery of old abscess area and eventually lobulated masses completely encircled the old area. Diameter of total area involved was 12 inches. Consistency of mass very hard, positioned within the skin and subcutaneous muscle. Deep penetration of needle in growth yielded only blood. Hematological examination revealed leukocytosis (13200/cmm) with neutrophilia (56%) without any toxic changes or active left shift. Skin of animal was spotted with small black moles.

Treatment and Discussion
The mass was removed surgically. The mass was cut and samples sent for pathology. Histopathological examination of tissue revealed the condition as Dermal Melanocytoma. Dermal melanocytoma is a benign tumor arising from the melanocytes in the epidermis, dermis or adnexa, but primarily from the external root sheath of the hair follicle. Melanocytes were appearing in groups and in irregular bundles. Melanophase were numerous containing melanin granules. Distribution of melanin was patchy at place; island of densely packed, rounded and spindle shaped cells were seen.

The majorities of melanocytoma are slow growing and vary considerably in their appearance, which may be related to the length of time they have been present in the skin. On cut section of melanocytoma the epidermis is usually intact, and there is often hair loss. The tumor may have variegated appearance, with areas of pigmentation intermingled with non pigmented regions. In histological features, the intraepidermal component of melanocytomas, seen in junctional and compound melanocytomas, consist of atypical melanocytes that occur either as single cells or small nests of tumor cells in the lower epidermis or the external root sheath of the hair follicle. Dermal melanocytomas may be less cellular.

An unusual variant of melanocytoma that consists of large round cells with an abundant pale eosinophilic granular cytoplasm is referred to as the balloon - cell melanocytoma. The majority of these tumors show little nuclear or cellular pleomorphism. The number of mitosis is usually low. Dogs less than a year of age occasionally develop melanocytomas, but it is difficult to establish if these are congenital lesions. Horses may occasionally develop congenital melanocytomas. Reported
melanocytoma in cattle. Although malignant melanoma has been reported in the goat, but there is no report about dermal melanocytoma in buffalo since now. In such cases, surgical treatment is the treatment of choice.

References