

## **Amorphus Globosus Monster Removed by Laparohysterotomy in a She Buffalo – A Case Report**

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### **Abstract**

Dystocia in buffalo due to amorphous globosus monster, relieved by laparohysterotomy is reported. Fetus was explored to have actual status of morphology and visceral organs. Exploration of the fetus didn't reveal any kind of identifiable viscera.

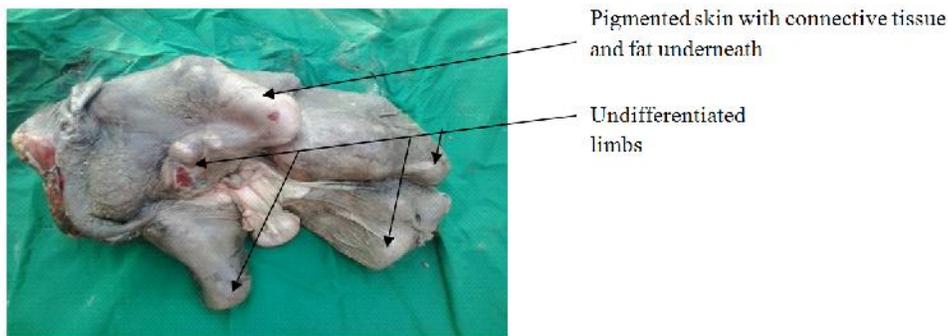
**Keywords:** Buffalo, monster, amorphous globosus, laparohysterotomy

Amorphous globosus is a asymmetrical spherical mass of connective tissue and fat without functional heart, covered with skin and hairs born co-twin to a normal viable fetus (Roberts, 1986; Hafez and hafez, 2000) and sometimes cartilage and bones may be present without any recognizable morphology (Singh *et al.* 2014). Incidence is uncommon among domestic animals (Czarnecki, 1976). Synonyms used are acardiac monster, holoacardius amorphus or acardius amorphus, amorphus globosus and fetal mole. Singh *et al.* (2009) reported an amorphous globosus co-twin to be a normal male fetus. In the present case a monster amorphous globosus, the only single fetus removed by laparohysterotomy is reported.

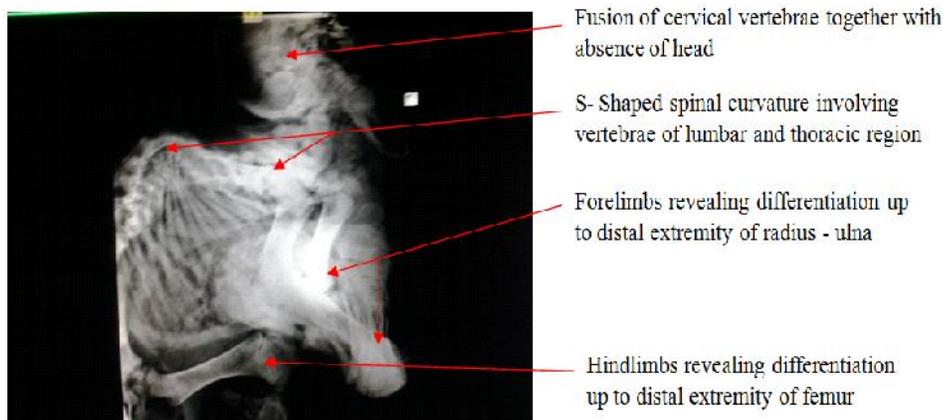
### Case history and handling

A buffalo (about 3 years of age) in first parity with full term pregnancy was presented to the Teaching Veterinary Clinical Complex of RAJUVAS with the history of severe labor pain since previous night. The buffalo was handled by a local practitioner with no fruitful outcomes. Clinical examination revealed edematous, swollen vulva. Respiratory rate, pulse rate and temperature were recorded as 24, 85 and 104.2, respectively. Blood picture revealed neutrophilia. Blood picture together with clinical examination of different parameters revealed buffalo to be in septicemia. Per-vaginal examination revealed sustained injuries throughout the birth canal; cervix was fully dilated without any fluid inside the uterus. Further exploration revealed the presence of a round shaped structure without any palpable extremities. Based on the per-vaginal examination, the case was tentatively diagnosed as dystocia due to a monster. The fetus was delivered through laparohysterotomy by giving incision on left lower flank region under local anaesthesia (2% lignocaine hydrochloride).

Following laparohysterotomy, an unrecognizable mass, weighing 12.88 kg, covered with thick skin confirming the description of amorphous globosus (Fig.1) was removed. The fetus was covered with pigmented skin with little hair growth all around the mass and had several soft tissue protuberances appearing as undifferentiated limbs and head (Fig. 2). Radiological examination also revealed incompletely differentiated skeleton with curvature of spinal cord (Fig. 2). To avoid dehydration and shock the animal was maintained on corticosteroid, ample fluid therapy together with other supportive therapy. Uterus was flushed with normal saline and Inj. Oxytocin (60 IU IV) was administered to check any kind of internal bleeding and flush out any debris remaining inside the uterus. Parenteral and intrauterine antibiotic coverage was given to combat any kind of possible infection. The animal was discharged following removal of the fetus and the owner was advised to continue fluid and supportive therapy along with ASD for 5 days. The animal recovered uneventfully.



**Fig.1:** Gross photograph revealing spherical mass without any recognizable morphology



**Fig.2:** Radiological picture revealing presence of bone without differentiation of head and limbs

## Discussion

Previously amorphus globosus monsters have been reported in cattle (Nourani and Shirazi, 2009; Zobel, 2011), in goat (Anwar *et al.* 2009) and mare (Crossman and Dicken, 1974). It is generally believed that due to anastomosis of artery to artery and vein to vein, a reversed circulation in the amorphous twin leads to the obliteration of the heart anlage (Pourlis *et al.* 2004). Since there were no distinguishable cardiac elements, it is believed to have occurred during the first month of gestation (Singh *et al.* 2014), in the present case monster was only single fetus recovered. Spherical shape together with the absence of any kind of palpable extremities render it difficult to handle such kind of dystocia by manually so laparohysterotomy is the method of choice as reported previously also (Singh *et al.* 2011).

## Gross and radiological description of monster

Gross examination of monster revealed thick spherical mass with unrecognizable morphology. The skin was pigmented with hairs all throughout. There was absence of skull (Fig.1).

Radiological examination revealed semi organized skeletal system together with soft tissues. There was incomplete differentiation of limbs involving forelimbs up to distal extremity of radius – ulna and hindlimbs up to the distal extremity of femur bone while these are reported to be undifferentiated in previous reports (Anwar *et al.* 2009). S- Shaped spinal curvature involved entire vertebrae of thoracic and lumbar region (Fig. 2).

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