

PARASITIC CONJOINED TWINS IN PIG - A CASE REPORT

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ABSTRACT

A five year old Large White Yorkshire sow gave birth to a conjoined cephalothoracopagus, which was stillborn.

Key words: Conjoined twins, Thoracopagus, Parasitic Conjoined Twins

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INTRODUCTION

Cases of new born connected twins, so-called Siamese twins, are well known in humans, laboratory mammals, domestic and wild birds, reptiles, amphibians and fish (Tejml, *et al.*, 2022). Various types of conjoined twins in the pig were reported by Partlow *et al.* (1981), McManus *et al.* (1994) and Mostafa *et al.* (2005). Cephalothoracopagus cases were previously documented in human (Sharma *et al.*, 2013), domestic cat (Mazzullo *et al.*, 2009) and sheep (Monfared *et al.*, 2013). However, Cephalopagus was not thoroughly investigated and described in pigs. The present communication places on record a cephalothoracopagus conjoined twin in a pig.

CASE DESCRIPTION

A Large White Yorkshire sow (5 years) gave birth to 10 piglets in its ninth farrowing. The farrowing started at full term,

with no complications and delivered eight piglets normally. Two conjoined stillborn piglets were delivered after treatment with Inj. Oxytocin (50 IU). The conjoined male twins with fused ventral aspect of thoracic region containing two pairs of fore limbs and posterior regions of both twins were well developed and having separate pelvis with external genitalia and rectum and pair of hind limbs (Fig.1). There was single head and neck, two eyes, two ears, two clear nostrils with complete jaws. The weight of the conjoined twins was 2750 g. The gastrointestinal (GI) tract of conjoined twins was single up to the level of the mid jejunum where it doubled.

DISCUSSION

The conjoined twins are classified based on anatomy, the place of connection, the level of symmetry of the twins and embryological development (Kulawik *et al.*, 2017). On the basis of anatomical observations this case was classified as cephalothoracopagus (monocephalic dithoracic). Cephalothoracopagus (monocephalic dithoracic) is a rare case of conjoined twinning.

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Thereportedcasefallunderthecategory of parasitic, heteropagus, or asymmetrical conjoined twins (Potter and Craig, 1975). In this case, one member, the “host” (or autosite), is anatomically normal and bears an incomplete co-twin, the “parasite,” whose growth and survival is solely dependent on the host. The asymmetrical or parasitic conjoined twins (PCTs) form a subset of congenital duplications. PCT are a product of a single fertilized ovum with variety of monozygotic twinning complicated in nature (Hamilton *et al.*, 1966). The incidence of conjoined twins in domestic animals and man has not been fully determined due to its high prenatal mortality as well as incomplete or poor documentation and the incidence is equally low in farm animals. This type of malformations are most common in cattle (Roberts, 1986) less frequent in sheep (Dennis, 1975) and pigs (Selby *et al.*, 1973; Partlow *et al.*, 1993) and extremely rare in horses (Roberts, 1986) and goats (Basrur,



Fig.1. Parasitic Conjoined Twins

1993). The macroscopic abnormalities of reported cephalothoracopagus were limited to the conjoined parts of the body. The separate body parts, i.e., part of the abdomen and pelvis with its viscera, tails and limbs were normally developed. Similar observations were made by Singh *et al.* (2003). A similar GI tract duplication was recorded in a human (Herring

and Rowlatt, 1981) and a cat (Mazzullo *et al.*, 2009).

CONCLUSION

A case of conjoined cephalothoracopagus piglets was reported.

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