

Mammary gland biopsy of Sahiwal-Friesian cows

ABSTRACT

Mammary biopsy method facilitates assessment of mammary morphology and function from relatively large number of cows. In many mammary gland experiments, this approach would be a viable alternative in obtaining tissue postslaughter. A technique for mammary biopsy in Sahiwal-Friesian cows is described using sedation and local anaesthesia. The technique involves approximately 5 g taking of tissue samples from the quarters of the udder with the use of the scalpel blade. The cow was casted on the ground with the head supported to prevent regurgitation of ruminal fluid into the respiratory tract. Preventive measures were taken to ensure minimal haemostasis with ligation. Adequate antibiotic cover (long acting antibiotic) was given intramuscularly following surgery. Post-operative recovery was uneventful and rapid. No clinical mastitis was observed in any of the biopsied cows throughout the remainder of the lactation. The loss of milk yield was no greater in biopsied glands than in control glands of the same cows. The milk yield and composition were rapidly and completely restored to pre-biopsy levels in the biopsied cows and from the normal quarters of the same cows were unaffected. Biopsy of a single quarter usually took about 20 minutes with adequate sedation.

Keyword: Biopsy; Mammary glands; Sahiwal-Friesian