

Modification of electro-ejaculation technique to minimise discomfort during semen collection in bulls

ABSTRACT

The aim of this study was to reduce acute discomfort experienced in bulls during semen collection by electro ejaculation method. The normal electro ejaculation method of semen collection (Method I) was compared to a modified method involving three stages of graduated electrical stimulation (Method II) in four crossbred bulls. The results showed that intensive muscle spasm, bull struggling and arc back were reduced ($p < 0.05$), as well as the time of penile protrusion ($p = 0.003$) and semen emission ($p = 0.084$) were improved using Method II than Method I. However, the total time taken for semen collection was the same in both methods. Also, there were no significant differences in semen parameters such as sperm volume, motility, morphology, viability, and concentration. In conclusion, gradation of electrical stimulation into three stages (our modified Method II) could help to ease the collection of semen samples from bulls with minimum discomfort signs. Furthermore, the modified method is also recommended to use for other animals, in particular, the wild animals.

Keyword: Electro-ejaculation; Discomfort sign; Semen collection; Bull; Semen evaluation