Horse

see Horse brain.

Current treatment of equine pituitary pars intermedia dysfunction (PPID) requires daily oral medication. Minimally invasive surgical palliation of this condition is appealing as a single treatment to alleviate the clinical signs of disease, dramatically improving the welfare of the horse.

To develop a surgical approach to the equine pituitary gland, for subsequent treatment of PPID.

A cadaver study to develop methodology and a terminal procedure under anaesthesia in the most promising techniques.

Four surgical approaches to the pituitary gland were investigated in cadaver animals. A ventral trans-basisphenoidal osteotomy and a minimally invasive intravenous approach via the ventral cavernous sinus progressed to live horse trials.

Technical complications prevented the myeloscopic and trans-sphenopalatine sinus techniques from being successful. The ventral basisphenoidal osteotomy was repeatable and has potential if an intra-operative imaging guidance system could be employed. The minimally invasive approach was repeatable, atraumatic and relatively inexpensive.

A minimally invasive surgical approach to the equine pituitary gland is possible and allows for needle placement within the target tissue. More work is necessary to determine what that treatment might be, but repeatable access to the gland has been obtained, which is a promising step [1].

1)
Carmalt JL, Scansen BA. Development of two surgical approaches to the pituitary gland in the Horse. Vet Q. 2018 Dec;38(1):21-27. doi: 10.1080/01652176.2017.1415488. PubMed PMID: 29219746.