



British Horseracing Authority Medication and Doping Control Research Summary: 'Gelding' Study

Why the research was needed

The Centre relies on donated horses which are usually geldings and mares for practical reasons and because the 'herd' needs to be representative of the racing population. If however there is a need for an entire male for scientific reasons then it is possible that one can come into the group temporarily before being gelded (castrated). Work earlier this year required that a testosterone compound was administered to each of a colt, mare and gelding; having completed sampling, the colt was booked in for routine gelding in order that he could then remain in the 'herd'. It became clear in talking to scientists at HFL that there seemed to be little if anything known about the changing steroid profile of a colt following gelding and that this could be an opportunity to add scientific value to the procedure that was required anyway for management purposes. Review of available literature confirmed that such a study would be of value; there were no reports of current analytical techniques being applied to establish 'normal' values in this scenario. It was therefore proposed that samples should be taken before and after the operation to form a bank of control samples for use by HFL and other regulatory laboratory partners to help in doping and medication control.

Overview of the study

Since the colt was protected under the Animals Scientific Procedures Act as a research animal, the samples had to be taken as part of a proper study, with ethical review as per any other work at CRS. The operation was carried out on 25th October with no complications and blood and urine samples were taken before and after with no problems (an intravenous catheter was not necessary as few blood samples were taken).

Outcome

Sample analysis is nearly completed; once it has been finished, these data will be published. Practically speaking, they will help in the distinction that may need to be made between the horse recently castrated, with unusual but physiological endogenous steroid profile, and that potentially arising from administration of exogenous steroid, such as testosterone. With the BHA's increasing emphasis on the difference between medication and doping control in terms of proportionate investigation and sanction, such distinction is important.