



## ORIGINAL PAPER

# Cushing's Disease: a new approach to therapy in equine and canine patients

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**Forty-one cases of Cushing's Disease affecting both equine and canine patients were treated with an identical mixture of two homeopathically prepared remedies (*ACTH* 30c and *Quercus robur* 30c), and the clinical improvements seen in the cases assessed. Homeopathy has been described as a medicine that can only be prescribed on the basis of individual symptoms shown, fitting the remedy to the patient, not the disease. The aim of this study was to define whether a standardised approach, using homeopathically prepared remedies, was a valid system of therapy for this disease, and if so, whether results were repeatable between species. The overall success rate for the therapy was 80% and results were broadly similar between the two species, indicating that homeopathy lends itself to the treatment of Cushing's Disease, and also to both cohort studies and group medicine. *British Homeopathic Journal* (2001) 90, 33–36.**

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## Introduction

Cushing's Disease, or hyperadrenocorticism, is the result of the breakdown of the normal hypopituitary–adrenal feedback mechanism, leading to excessive production of hormones from the adrenal gland, in particular the gluco-corticoids (cortisol). In the dog 85–95% (according to the author) of cases are due to pituitary neoplasia, either micro, or macroadenomas, and some 5–15% of cases are due to adrenal neoplasia. In horses and ponies all cases are pituitary in origin. Functional adrenocortical neoplasia in the horse has not been documented.<sup>1</sup> Ectopic secretion of adreno-corticotrophic hormone—*ACTH*, as seen in 17% of human cases, from hormonally active tumours elsewhere in the body has not been observed in the dog<sup>2</sup> or the horse.<sup>1</sup>

Cushing's Disease is a chronic disease of insidious onset, and is slowly progressive. One problem with diagnosis is the variability in the clinical signs seen between cases. For example skin changes are only observed in 65% of canine cases<sup>2</sup> yet this is the most

commonly observed sign by owners, along with the characteristic polydipsia/polyuria.

In horses, a variety of clinical signs are seen. Cushing's Disease occurs mainly in aged horses, with a minimum age of 7y, and is said to have an increased prevalence in ponies. The most marked sign is hirsutism, often with a history of failure to shed this coat in the spring. A pituitary neoplasm is the only clinical condition known to cause hirsutism in the horse<sup>1</sup> and in an aged horse the failure of coat shedding is strongly suggestive of a pituitary neoplasm.<sup>3</sup> For these reasons diagnosis in the horse is often based on these signs alone. Other useful diagnostic symptoms include hyperhidrosis, polyphagia, and in many cases bulging of the supraorbital fat. In the horse two major sequelae of pituitary adenoma are type 2 diabetes mellitus (and associated weight loss) and also laminitis. Hence an elevated blood glucose level and alkaline phosphatase (due to the cortisol levels) is used by some as another indicator of Cushing's Disease. Other complications include tendency to infection, infertility, pseudolactation, poor wound healing, seizures and blindness, behavioural changes including reduced response to pain stimuli and passivity.<sup>1</sup>

Unlike the horse, in the dog the classical appearance is of a truncal, symmetrical, non-pruritic

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alopecia. However, this only occurs in some 65% of cases. The alopecia may be quite extensive, but it usually spares the limbs and head, with the exception of the dorsal muzzle. Cases showing these dermatological signs also show some skin thinning, with a lack of tone, and occasionally calcinosis cutis. More systemic signs seen as a consequence of the increased circulating glucocorticoid levels include polydipsia/polyuria (in 85%), polyphagia, obesity with abdominal enlargement and hepatomegaly, breathlessness, and behavioural changes.<sup>2</sup>

It is worth comparing here the homeopathic proving of cortisone carried out in 1963.<sup>7</sup> This gives a description of not only Cushing's Disease, as seen in man, but also the symptoms of the iatrogenic overdosing of steroids encountered in practice in cases on long-term therapy. It raises the possibility that cortisone, and related drugs, have a homeopathic action!

Many conventional therapeutic options for treatment of Cushing's Disease have been proposed but the pros and cons have to be weighed up for each, also none are registered drugs in the UK. Surgery is not a practical solution in general practice at present in animals. In the dog conventional medical management is essentially limited at present to one of o,p'DDD (mitotane, lysodren) and ketoconazole, although other drugs are being developed. With o,p'DDD, although clinical remission is high—as much as 86%<sup>5</sup>—relapse is common—as much as 57% in year one<sup>2</sup>—and side effects are many. Ketoconazole treatment is only symptomatic, is expensive and less efficient than o,p'DDD, and can produce gastritis and occasionally hepatitis. In horses conventional therapy basically involves the use of either dopamine agonists or serotonin antagonists. The latter, as cyproheptidine, is primarily used as a less expensive option, and is said to reduce plasma ACTH in 70% of cases.<sup>1</sup> Dopamine agonists (such as bromocriptine and pergolide) are said to be fairly effective. In a case report of 25 animals, 23 showed improvement in clinical signs on pergolide. Side effects with pergolide include diarrhoea, depression, and colic and anorexia.<sup>1</sup> In horses, due to their size, cost (often around £5 per day) is a major problem for most owners.

Homeopathy is a form of therapy based on 'Similia similibus curentur'—let like be treated by like. There are case reports of Cushing's Disease responding to one remedy-individualised homeopathy. Selection for a remedy by detailed case taking, comparison with repertories and with known Materia Medica will generally yield the best results in most cases of chronic disease. The use of a standardised homeopathic approach has not, as far as I am aware, been proposed before. The purpose of this study was to establish whether one could standardise an approach, with homeopathically prepared remedies, suitable for all cases of diagnosed Cushing's Disease, for general use, without the need for an experienced classically

trained homeopath. This paper describes the results of 41 cases seen in practice given a standardised regime of a homeopathic preparation derived from *ACTH* and *Quercus robur* in 30c potency.

## Materials and methods

Cases selected for inclusion in this study were drawn from primary care patients as well as referrals. Clinical confirmation of diagnosis depended to some degree on the clinic they were referred from and also the species. Many horses were diagnosed on hirsutism and blood glucose alone<sup>1,3</sup> while 12 of the 18 dogs were confirmed on *ACTH* stimulation tests,<sup>2</sup> the rest displaying classic symptoms and clinical history. Cases have been monitored over periods ranging from 2 months to 6y depending on when they were admitted to the study, with success or otherwise of treatment assessed after 4–6 weeks of starting on the treatment. Monitoring is ongoing to date.

*ACTH* is raised as a result of the syndrome if pituitary dependant, but low if caused by adrenal neoplasia. The work of Jouanny<sup>4</sup> on homeopathic potency of hormones for therapy would suggest a 12c or higher therefore if pituitary dependent, and this would cover all horses in the study. However, 5% of canine cases were ruled out with this remedy alone as they would be adrenal in origin suggesting the need for a 7c or lower. Jouanny's principles<sup>4</sup> 30c was selected as it would fit most cases and experience suggests 30c seems to work as a moderating potency in hormonal disease.

*Quercus robur* is derived from tincture of acorns. This remedy is useful in dropsy, in depressed cases with reduced mental responsiveness, puffiness below the eyeballs (not anatomically feasible in the horse and hence the supra-orbital swelling?), cravings, ascites, hepatomegaly, polyuria, breathlessness, varicose veins, etc.<sup>6</sup> All are symptoms associated with the remedy and with Cushing's Disease—hence this could be called a classical homeopathic prescription—the specific for the disease? However, as a small remedy this doesn't appear in work-ups via the classical homeopathic repertories, which is a major fault of that technique. *Quercus robur* was discovered for use in this study by using radiesthetic principles.<sup>8</sup> The potency was chosen to correlate with the *ACTH* so they could be combined for ease of administration.

Each case was given a combination of *ACTH* and *Quercus robur* in 30c potency. Dosage was twice daily.

Clinical responses were assessed as excellent when clinical symptoms appeared to resolve completely, poor when some symptoms remained even if the animal appeared to improve in health, and a failure if there was no response at all.

The remedies were made up by Ainsworth's Homeopathic Pharmacy in 30c and supplied as 95% tincture which was diluted down into 40% alcohol solution (vodka) at a rate of one drop concentrate, of each, to 1 ml vodka, or added to lactose tablets at a rate of two drops of each 95% solution to a 7 g vial. Dosage was two drops, or one tablet, of the combination twice daily.

## Results

A total of 41 animals were treated by the combination medicine, of which some 80% (33 cases) responded excellently in achieving remission from clinical symptoms, four cases responded only poorly, and four cases failed to respond at all. Almost all the responding cases are still alive and well at time of writing.

Equine cases counted for a total of 23, of which 91% (21 cases) responded excellently, one case responded poorly, and one case failed to respond at all.

Canine cases, where success rate was predicted to be lower as the therapy wasn't designed to cover adrenal neoplasm, were actually less successful. Twelve cases (67%) responded excellently, three cases poorly and three cases not at all.

Over the follow-up period four cases suffered relapses, three of which were subsequently found to be due to the development of thyroid problems. These were: one horse which developed an active thyroid tumour, treated successfully homeopathically with a combination of *Flor de piedra* 12c, *Thyroidinum* 30c, and *Iodum* 30c; and one dog and one pony which developed hypothyroidism (confirmed by blood testing) treated with soloxine. Both responded well and

**Table 1** Data used for Cushing's Disease trial analysis

Patient	Breed	Sex	Age at onset	Diagnosis method	Period on Tx to June'00	Results
<i>Dogs</i>						
Reg	Staffie	M	10y	ACTH Stim	3y	1
Harvey	Boxer	Mn	9y	ACTH Stim	5m	1
Pippa	Eng. Set.	Fn	8y	Clin symp	6m	2
Jack	Scottie	Mn	14y	Clin symp	5m	1
Polly	X-Bred	Fn	14y	ACTH Stim	2m	3
Rosie	Retriever	Fn	10y	ACTH Stim	6m	1
Barabus	B. Collie	M	13y	ACTH Stim	5m	2
Tessa	Cairn	F	N/k	Clin symp	5m	1
Penny	Collie X	Fn	13y	Clin symp	2m	2
Snooper	Collie X	Fn	16y	ACTH Stim	2m	3
Sheena	Eng. Set.	F	6y	ACTH Stim	3y	1
Gizmo	X-Bred	M	N/k	ACTH Stim	3m	1
Mutley	JRT	F	12y	Clin symp	4m	1
Conrad	Dachsund	Mn	8y	ACTH Stim	3y	1
Coco	Sx. Span.	Mn	10y	ACTH Stim	2.5y	1
Ben	C. Span.	Mn	2y	Clin symp	3y	1
Kyrie	Bichon	Mn	12y	ACTH Stim	6m	3
Holly	Irish Set.	Fn	9y	ACTH Stim	3m	1
<i>Horses</i>						
Rusty	Pony	Mn	N/k	Clin symp	9m	1
Jens	Arab X	Mn	20y	Symp/Bld	6y	1
Charlie	N/k	Mn	N/k	Clin symp	2m	1
Duffy	N/k	F	N/k	Symp/Bld	3y	1
Tuppence	Welsh P	Mn	34y	Symp/Bld	2y	1
Smokey	Welsh P	Mn	8y	Clin symp	6m	3
Susie	Welsh P	F	18y	Symp/Bld	2.5y	1
Kes	Cob	Mn	34y	Clin symp	4m	2
Whisper	Pony	F	16y	Clin symp	8m	1
William	Shetland	Mn	15y	Symp/Bld	2y	1
Bridie	Welsh P	Mn	25y	Symp/Bld	20m	1
Edward	Cob	Mn	27y	Symp/Bld	7m	1
Starlight	Pony	Mn	29y	Dex supp	3m	1
Roq	Cob	Mn	N/k	Clin symp	2.6y	1
Sooty	Pony	Mn	N/k	Clin symp	14m	1
Rocky	Pony	Mn	25y	TRH Stim	2m	1
Lena	Pony	F	N/k	Clin symp	22m	1
Ginger	Pony	Mn	N/k	Clin symp	10m	1
Milnes	N/k	Mn	N/k	Clin symp	4m	1
Watson	N/k	Mn	N/k	Clin symp	2m	1
Impy	T-bred	Mn	N/k	Clin symp	18m	1
Tosca	N/k	Mn	N/k	Clin symp	8m	1
Woody	Pony	Mn	N/k	Symp/Bld	4y	1

Abbreviations: M= male, F= female, Mn= male castrated, Fn= female castrated, y= years, m= months, N/k= not known; ACTH Stim= ACTH Stimulation test, Clin symp= Classic clinical symptoms, Symp/Bld= Clinical symptoms and typical blood parameters, Dex supp= Dexamethasone suppression test, TRH Stim= TRH Stimulation test.

Results Abbreviations 1= return to clinical normality, 2= improvement but not complete resolution of symptoms, 3= No response to treatment.

returned to their healthy condition. The other two cases responded to increasing the frequency of dosing in proportion to the severity of the symptoms seen. One of these then stabilised with the addition of *Uranium 6c*, again discovered by radiesthesia.

All cases remain on treatment indefinitely as withdrawal of the treatment appears to result in slow relapse.

## Discussion

The association of Cushing's Disease with thyroid function,<sup>2</sup> and seen in some cases in this study, might suggest that all unstable cases, and poor responders, should be screened for thyroid dysfunction. The author has encountered this association in a number of cases suffering Cushing's Disease, including one other horse, other than those included in the study.

The production of these results, broadly repeatable between species, indicates that the combination of *ACTH* and *Quercus robur*, in a 30c potency, is a valid system of therapy for Cushing's Disease which can be used by any veterinarian, whether homeopathically trained or not. Success rates are comparable, if not better, than most conventional drug orientated approaches with little relapse. This study suggests the protocol would also lend itself to a double-blind trial, especially with the equine cases, something that has become a Holy Grail for homeopathic researchers.

In addition the therapy is inexpensive and easy to administer, with no side-effects; making treatment more available to the pet/horse owner, which can only be good for animal welfare.

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## References

- 1 Van der Kolk JH. Equine Cushing's Disease. *Equine Veterinary Education* 1997; **9**: 209–214.
- 2 Heripret D. Canine hyperadrenocorticism. *Waltham Focus* 1997; **7**: 2–8.
- 3 Eustace R. Equine pituitary neoplasia. *In Practice* 1991; **13**: 147–148.
- 4 Jouanny J. *The Essential of Homoeopathic Therapeutics*. Lyon: Laboratoires Boiron, 1995.
- 5 Hertog E, Braakman JC, Teske E, *et al.* Results of non-selective adrenocorticolysis by o,p'DDD in 129 dogs with pituitary-dependant hyperadrenocorticism. *Veterinary Record* 1999; **144**: 12–17.
- 6 Clarke JH. *Dictionary of Practical Materia Medica*, 3rd edn. Sittingbourne: The Homoeopathic Book Service, 1991, pp 941–943.
- 7 Julian OA. *Materia Medica of New Homoeopathic Remedies*. Beaconsfield: Beaconsfield Publishers Ltd, 1971, pp 186–194.
- 8 Tansley DV. *Radionics Interface with the Ether Fields*. Saffron Walden: CW Daniel, 1975.