Nine cases of suspected Munchausen syndrome by proxy (MSBP), involving pets as proxies, were identified among 448 cases of non-accidental injury to small animals. These cases, recorded by a random sample of small animal practitioners in the UK, demonstrated several combinations of features, including attention-seeking behaviour by the owner, real and apparently factitious clinical signs, deliberate injury, markedly abnormal biochemical profiles, serial incidents, interference with surgical sites, recovery after separation from the owner, and 'veterinarian-shopping' by the owner. All of these features are consistent with those identified in the well documented MSBP in which children are the victims. Furthermore, one of the cases involved serial attempts at poisoning other animals and a child.

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INTRODUCTION

This is the fourth in a series of papers describing a study of veterinarians' experiences of encountering non-accidental injury (NAI) in dogs and cats (physical abuse, or so-called 'battered pets'). Previous papers described reasons for suspecting NAI (Munro and Thrusfield 2001a), and detailed specific injuries (Munro and Thrusfield 2001b). The study also revealed cases of sexual abuse (Munro and Thrusfield 2001c), while the current paper details a special type of abuse that was also recorded: Munchausen syndrome by proxy (MSBP) (also termed Munchausen by proxy syndrome). This syndrome, in which a child is the usual proxy, is characterised by falsification of illness in another, in order to mislead the physician into believing that the child is ill (Blumenthal 1994). In the veterinary context, an animal is the proxy.

The present paper describes a number of suspected cases of the syndrome involving animals, and also draws comparisons between animals and children as the proxies. It is appropriate to note here that sudden death and unusual illnesses in pets are included by Meadow (1997a) in a list of warning signals for MSBP in children.

In paediatric texts, it is conventional to discuss MSBP separately from other forms of abuse, and therefore a similar approach has been adopted for the veterinary cases identified in the study carried out by the present authors.

Terminology

The terminology used for this type of abuse can be confusing (Hobbs and others 1999); therefore, initial discussion of definitions is necessary. These definitions are extracted directly from the large body of relevant medical literature, which is their only current source.

Munchausen syndrome

This syndrome, first described by Asher (1951), applies to adults who present themselves to doctors and hospitals with false stories of illness, thus subjecting themselves to needless admissions and investigations in order to gain sympathy and attention (Meadow 1997a). The severity of the syndrome in some cases is almost incredible; for example, one case involved 800 admissions to 600 hospitals, and 42 exploratory laparotomies, within 12 years (Laurance 1995). The syndrome was eponymously named after an 18th century mercenary, Baron von Munchhausen, who was compelled to tell the most incredible lies about his adventures, and who became increasingly 'addicted' to the attention and adulation that he received (Hobbs and others 1999). Once in use in the English-speaking world, the spelling of 'Munchhausen' changed to Munchausen.

Munchausen syndrome by proxy

This syndrome, described by Meadow (1977), involves falsification of illness in a child — usually, but not invariably, by the mother. Other terms have been used, including 'factitious illness by proxy' (McClure and others 1996) and 'illness induction syndrome' (Gray and Bentovim 1996). The perpetrator's usual motive, again, is to obtain sympathy and attention (Meadow 1997a). Little is known about the cause, although a high proportion...
of offending parents have been abused as children (Hobbs and others 1999).

Deliberate poisoning and suffocation are also particular forms of child abuse, which introduce some confusion into classification of types of abuse. These, too, are described in separate chapters in the paediatric literature (for example, Meadow 1997b,c). Although both may be perpetrated in MSBP; Meadow (1997a) considers it unwise to include cases of poisoning and suffocation as MSBP, unless they happen in the context of repetitive factitious illness. In marked contrast, however, Hobbs and others (1999) write that both of these forms of abuse fall into the same group as MSBP, because all three are related forms of child maltreatment. The same authors also suggest that the term MSBP should be abandoned, and that the consensus seems to be that the term best used is 'factitious illness by proxy', poisoning and suffocation being described and used in the diagnosis. Eponyms are seldom used in veterinary medicine; thus, 'factitious illness by proxy', poisoning and suffocation being described and used in the diagnosis. Eponyms are seldom used in veterinary medicine; thus, 'factitious illness by proxy' would seem to be the preferred choice in the case of animal proxies. However, the term 'Munchausen syndrome by proxy' is ingrained in the public consciousness, and has therefore been retained for this paper, while also encompassing poisoning. (Cases of suffocation were not reported in this study.)

Suspicion of MSBP
Meadow (1997a) writes that, in relation to children, MSBP may be suspected when:

- physical or psychological symptoms or signs are intentionally produced or invented by a parent or other carer;
- the perpetrator, at least initially, denies inventing or causing symptoms or signs;
- the symptoms and signs diminish or cease when the child is separated from the perpetrator.

Stages of falsification
There are different stages of falsification, ranging from 'false illness story alone' through 'false illness story plus fabrication of signs' to actual 'induced illness' (Meadow 1997a). In the first stage, even though there is no direct harm, there may be needless (and possibly invasive) investigations (such as blood sampling). In the second, tampering with records or samples (such as urine) is added, and, in the third, actual physical harm is caused, and a whole range of physical signs is induced.

Clinical features associated with MSBP in children
The range of symptoms that can occur in MSBP in child proxies is very wide (Blumenthal 1994, Meadow 1997a, Hobbs and others 1999). Hobbs and others (1999) write that 'The symptoms are as varied as the insults visited on the child', and also point out that the laboratory tests may be contradictory and confusing. In fact, the signs, symptoms and biochemical changes may be so bizarre that they may prompt the experienced physician to utter 'he has never seen a case like this before' (Blumenthal 1994).

Hobbs and others (1999) list the following as the more common clinical presentations:
- bleeding (haematuria and haematemesis);
- seizures;
- CNS depression (drowsiness and coma);
- apnoea;
- failure to thrive;
- diarrhoea;
- vomiting;
- fever;
- rashes;
- hypertension.

The signs may be manufactured in an extensive variety of ways, the only limit being the imagination of the perpetrator. Blumenthal (1994), for instance, writes that:
- haematuria is produced by adding blood to the urine specimen;
- irritants can be applied to the skin;
- diarrhoea, vomiting, neurological problems and biochemical disorders can be induced by covert administration of laxatives, emetics, sedatives, tranquillizers, salt and chemicals.
Table 1. Nine suspected cases of Munchausen syndrome by proxy in animals

<table>
<thead>
<tr>
<th>Case</th>
<th>Species</th>
<th>Age category</th>
<th>Gender</th>
<th>Details reported by respondent</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dog</td>
<td>7 months to 2 years</td>
<td>M</td>
<td>At the time, the veterinarian was called out three times in one day by the owner, who was insistent that a neighbour had poisoned this dog (and another). There were no obvious injuries, except that both dogs were restless and one had haematuria. Both recovered after two days' hospitalisation. The problem came to light later, when the owner was prosecuted (and convicted) for the attempted poisoning of his child. It was brought out in court that the accused had previously attempted to poison two other pets, who had been treated by other veterinarians. The respondent stated that the owner had been 'accused of Munchausen by proxy syndrome'.</td>
<td>Survived</td>
</tr>
<tr>
<td>2</td>
<td>Dog</td>
<td>NR</td>
<td>NR</td>
<td>The respondent stated he/she 'suspected Munchausen syndrome by proxy'. The pattern followed the owner's own attempts at getting treatment for lameness, haematuria and otitis externa for the dog. The owner always 'pretreated' the dog, so the veterinarian found it difficult to diagnose the original problems, if any. The dog was reported 'fitting', but always presented normal in the surgery. After very abnormal electrolyte levels were found, the dog was sent to a referral centre, where death occurred. A postmortem examination was inconclusive</td>
<td>Died</td>
</tr>
<tr>
<td>3</td>
<td>Dog</td>
<td>NR</td>
<td>NR</td>
<td>The respondent reported having a client with 'Munchausen syndrome by proxy', who, before attending the respondent's practice, had broken the legs of previous dogs. The police were aware of her but had encountered difficulty because she changed her address and veterinary practice frequently. She had not yet injured her current pets, but it was noted that they were very frightened of her</td>
<td>NR</td>
</tr>
<tr>
<td>4</td>
<td>Dog</td>
<td>7 months to 2 years</td>
<td>F</td>
<td>Respondent reported that a series of incidents over a number of years 'led to a finding of Munchausen syndrome'</td>
<td>NR</td>
</tr>
<tr>
<td>5</td>
<td>Cat</td>
<td>7 months to 2 years</td>
<td>F</td>
<td>The cat's owner gave an incoherent history with regard to the cause of injuries (abdominal bruising and fractured femur). Postoperative trauma occurred to the intramedullary pin. Repeated problems arose with the case until the cat was hospitalised. Problems with other animals were noted. Respondent considered this was a 'Munchausen by proxy type problem'.</td>
<td>Survived</td>
</tr>
<tr>
<td>6</td>
<td>'Pets'</td>
<td>NR</td>
<td>NR</td>
<td>Eight to 12 pets, belonging to one person, died in unexplained and suspicious circumstances that aroused suspicion (eg, after nail clipping). The respondent stated that he/she would now regard this as 'indicative of a syndrome similar to Munchausen syndrome as it was almost related to attention seeking behaviour'</td>
<td>Died</td>
</tr>
<tr>
<td>7</td>
<td>Dog</td>
<td>NR</td>
<td>NR</td>
<td>The respondent was positive that the owner had poisoned own dog. The case was puzzling clinically and no specific findings could be found on investigation. There was an almost triumphant 'I told you so' from the owner when the dog died. Postmortem examination was refused</td>
<td>Died</td>
</tr>
<tr>
<td>8</td>
<td>Dog</td>
<td>&lt; 12 weeks</td>
<td>NR</td>
<td>A three-week-old puppy with severe head injuries was presented in the surgery for treatment. The owner subsequently requested a house call to examine another four puppies of the same age; all of them had 'crushed skulls'. After being questioned by the police, the owner admitted injuring the puppies herself</td>
<td>Euthanased because of injuries</td>
</tr>
<tr>
<td>9</td>
<td>Cat</td>
<td>&lt; 12 weeks</td>
<td>F</td>
<td>Respondent reported repeated visits (very frequent - up to four times daily) by the kitten's owner (and friend) who reported smoke inhalation in the kitten, and also diarrhoea in other animals, but with no clinical evidence. During consultation, the kitten was handled roughly by the owner's friend, who also displayed intimidating behaviour towards the staff. The kitten suffered severe head injuries, and a fractured skull was suspected</td>
<td>Euthanased because of injuries</td>
</tr>
</tbody>
</table>

A further three animals (two dogs and one cat; cases 7 to 9) were identified by the authors as possible cases, by the features they displayed. All details reported by the respondents are reproduced in full in Table 1.

Details of breed were supplied for two dogs and two cats, but, to preserve anonymity, were not tabulated. Various combinations of features were reported. For the six cases identified by the respondents, these included:

- suspected attention-seeking behaviour by the owner (case 6), also evidenced by repeated requests for treatment (cases 1, 2, 5 and 8);
- clinical signs reported and 'pretreated' by the owner, but with no
clinical evidence on examination (case 2);
• clinical signs actually present: haematuria, restlessness, fits, fractures, abdominal bruising (cases 1, 2, 3 and 5);
• very abnormal electrolytes (case 2);
• recovery after hospitalisation (ie, after separation from the owner) (cases 1 and 5);
• suspected interference with an orthopaedic pin (case 5);
• serial deaths of pets, in unexplained and suspicious circumstances (case 6);
• a series of incidents, over a number of years (details not reported) (case 4);
• fear of owner (case 3);
• frequent change of address and veterinary practice (case 3);
• conviction of the owner for attempted poisoning of his child (the owner's dogs also had been poisoned by him previously) (case 1).

For the three cases identified by the authors, the features included:
• suspected attention-seeking by the owner (evidenced by repeated requests for treatment) (cases 8 and 9);
• admission of deliberate injury (case 8);
• clinical signs reported by the owner, but with no specific corroborating clinical evidence; postmortem examination refused (case 7);
• clinical signs actually present: fractures (cases 8 and 9).

DISCUSSION

It is interesting that veterinarians have recorded MSBP in the study. Not only is information on MSBP involving animals scant, but also it has been published to date in journals that are not, generally, readily available to veterinarians. For example, a case in which an animal was the proxy was recorded by Feldman (1997) in a journal of psychiatry, and describes a case of deliberate starvation in a Doberman. The owner of this dog eventually acknowledged that she had starved her dog, and fabricated signs to 'elicit the attention and concern of others'. However, cases of MSBP in children have been discussed in media reports (eg, Roberts 1999); thus, it is quite possible that the veterinarians' awareness of the syndrome has been heightened through such reports, thereby enabling them to detect possible cases with animal proxies.

The study of MSBP in animals requires familiarity with the knowledge and experience accumulated by the medical profession on MSBP, the diagnosis of which is acknowledged to be difficult and controversial (McClure and others 1996, Hobbs and others 1999). It is reasonable to assume that the same problem will attach to an animal proxy. The very nature of this type of abuse is complex: it involves the affected animal (whose welfare is at stake), the owner (whose mental state may be uncertain) and the owner's relationship with the veterinarian.

It is the incredible nature of many cases that is perhaps the biggest barrier to initial suspicion. Perpetrators of MSBP in child proxies may appear to be attentive, caring and plausible, while actually being quite devious (Hobbs and others 1999). It is quite likely that the same may be true of the owners of animal proxies.

Comparison of MSBP in animals and children

Despite the paucity of information available in the veterinary literature, the respondents have, nevertheless, highlighted many features that are similar to those found in child proxies, and it is instructive to compare them.

Attention-seeking

Although only one respondent specifically mentioned attention-seeking in the case history (case 6), several cases suggest this feature. For example, one respondent specifically mentioned repetitive requests for home visits (case 1) and another described very frequent visits (up to four daily) to the surgery (case 9). Cases 2, 3, 5 and 8 indicate multiple consultations that would point—in the context of these cases—to some considerable interest in gaining attention.

Clinical features

Two of the more common clinical presentations in children are haematuria and 'seizures' (Hobbs and others 1999). Faciitious haematuria is produced by adding blood—sometimes the perpetrator's own blood, or blood from uncooked meat—to a urine specimen (Blumenthal 1994). The same author also writes that, for infants, doctors would be well advised to have fits confirmed by someone other than the mother before anticonvulsants are commenced. In the current study, haematuria was noted in two cases (cases 1 and 2). 'Fitting' was also reported in case 2, but the respondent had realised that the dog always 'presented normal' when being examined in the surgery.

If the mother is separated from the child in cases of MSBP, signs and symptoms abate (Blumenthal 1994, Meadow 1997a, Hobbs and others 1999). Two of the nine cases in the animal series fell into this type of category. In case 5, it was reported that repeated problems arose with the case until the cat was hospitalised. The dogs in case 1 also recovered after hospitalisation. It may, therefore, be wise for veterinarians to hospitalise a suspected case of MSBP for a period of observation.

There may be deliberate interference with equipment used for treatment. For example, Meadow (1997a) documents interference with intravenous lines, and with catheters. In the present case series, it is worth noting that the respondent who reported case 5 also noted postoperative trauma to the cat's intramedullary pin. Moreover, this was a patient who only recovered after hospitalisation.

The very abnormal electrolyte levels found in case 2 may be a pertinent example of bizarre biochemical abnormalities that are characteristic of some cases of MSBP in children (Blumenthal 1994).

'Veterinarian-shopping'

Changing veterinarians is common and may happen for a variety of perfectly valid reasons. However, the owner who was reported to have broken the legs of her...
specific findings on investigation and an owner who appeared to take a certain satisfaction when the dog died — may have placed the veterinarian in just such a situation.

**Warning signal for MSBP in children**

Case 1, in which the owner first poisoned several dogs before proceeding to do the same to his child, is an example of the warning signal — 'Sudden death and unusual illnesses in pets'— listed by Meadow (1997a) for MSBP in children.

**Frequency of the syndrome**

The nine suspected cases of MSBP reported in this study cannot be used as accurate measures of the extent of this syndrome involving animals. However, they were among the reports of NAI received from 404 veterinary practitioners (of 1000) who responded to the survey. Therefore, although the numbers are small, they may reflect a problem that is by no means negligible. Germanely, MSBP in children is not a common occurrence (Meadow [1997a] gives an annual incidence of at least 3/100,000 in children under one year of age).

**Conclusions**

This paper has documented the first series of reports of cases of suspected MSBP with animal proxies. The authors are veterinarians — not psychiatrists — and so cannot speculate on the motives of owners associated with these cases. Moreover, there are considerable problems associated with the diagnosis of MSBP. Nonetheless, an extensive medical literature has been established on MSBP with child proxies over the past 20 years, and continues to grow. The cases described here show marked similarities to child-proxy incidents, and so should not only inform the small animal practitioner about a curious syndrome, but also form the basis of broader debate and comparison between the experiences of the veterinary and medical professions.

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