

MOST COMMON CANINE BREEDS PRESENTING WITH DYSTOCIA TO A FIRST OPINION EMERGENCY SERVICE IN THE UK

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Aim

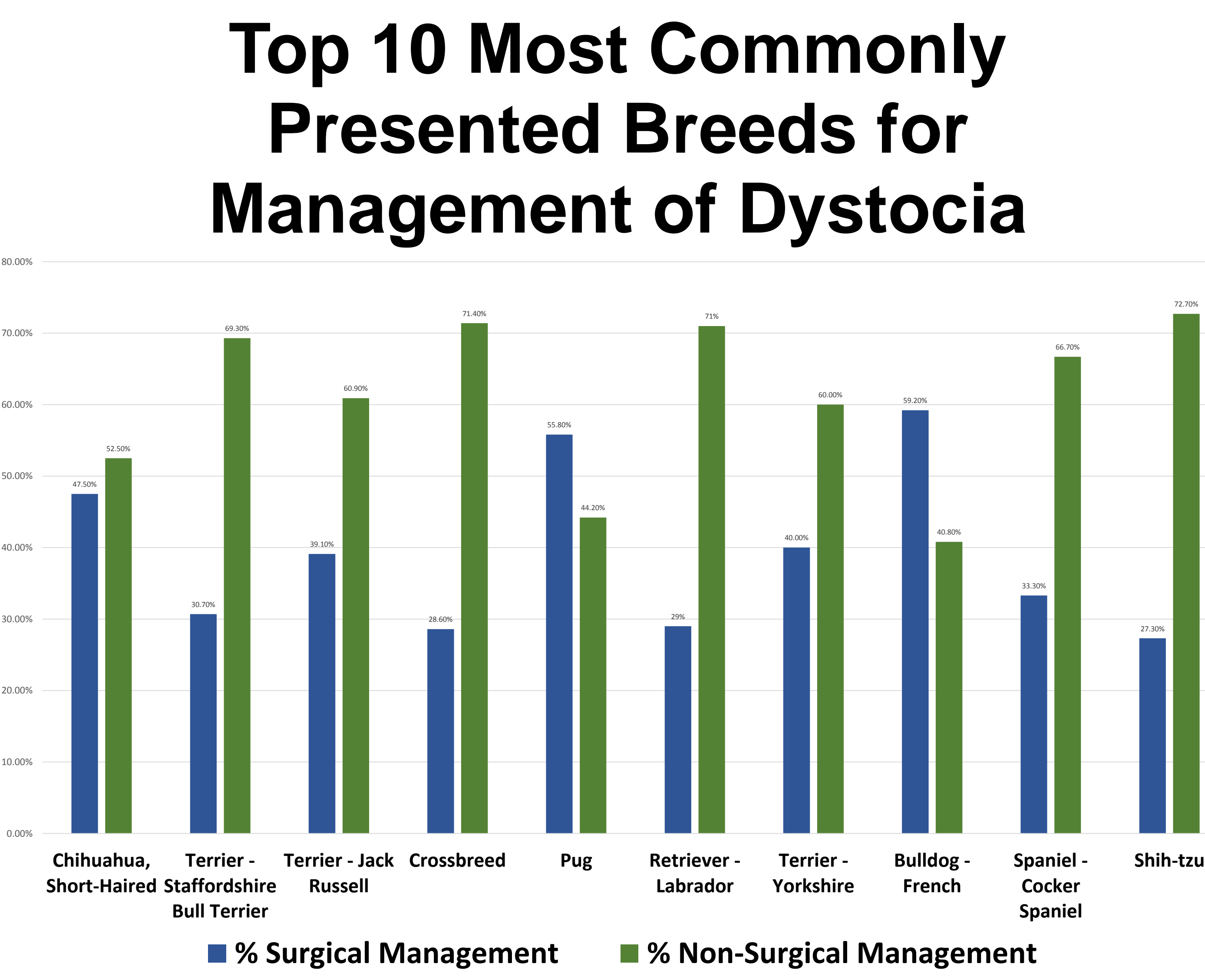
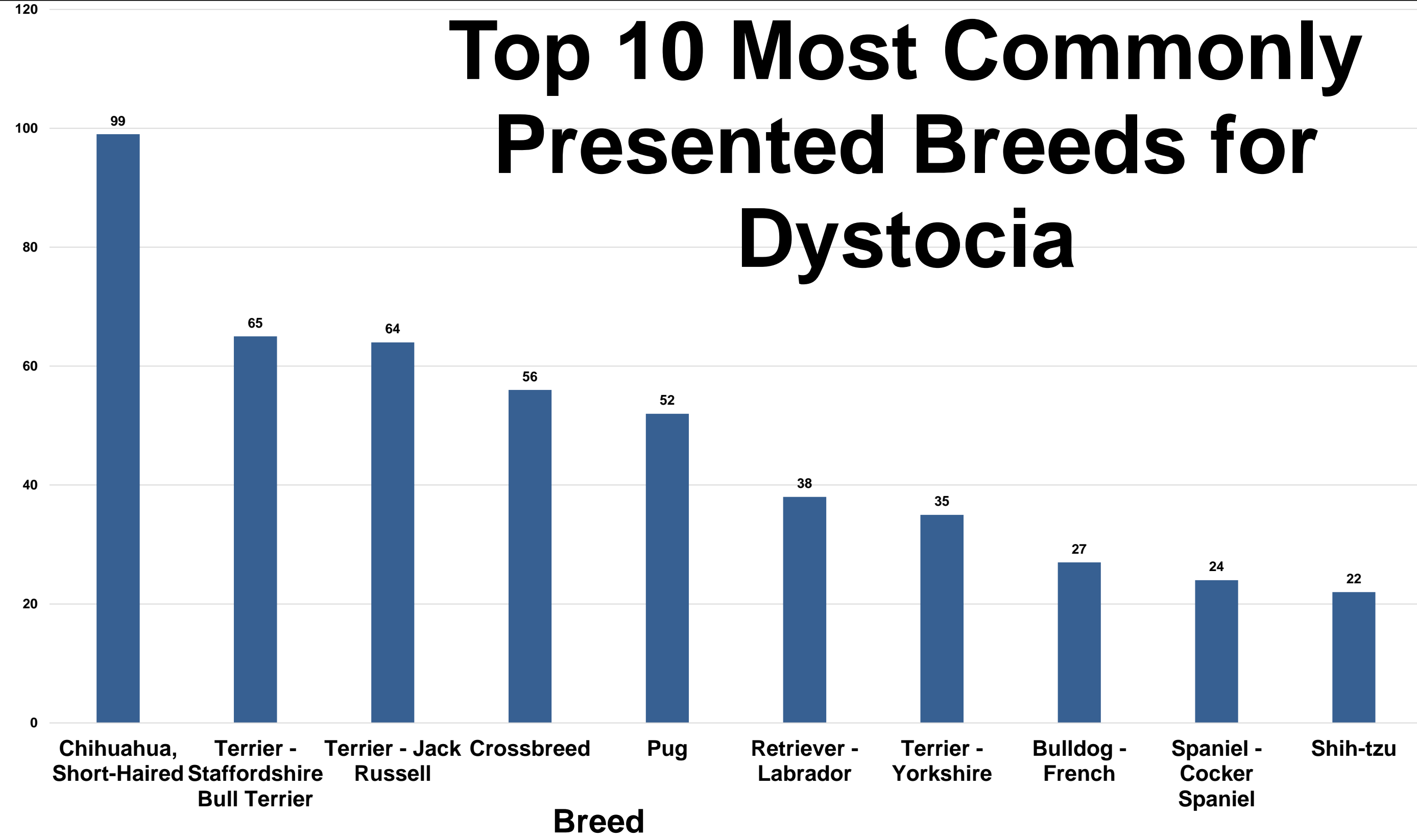
To identify the most common breeds presenting with dystocia to a first opinion emergency service in the UK and to identify whether any of the top 5 breeds were over-represented for dystocia. The proportion treated surgically were also identified.

Methods

The practice management system was queried for all dogs seen between May 2012 and January 2014. 81,241 records were retrieved and filtered for breed, presenting complaint of dystocia (VeNOM coding) and whether a surgical procedure was performed. Records were included if the presenting complaint was coded. Proportional analysis was performed using chi-squared test with Yates correction (significance set at $p < 0.05$) to investigate whether the top 5 breeds presenting for dystocia were over-represented when compared to the entire population.

Results

77,966 of the 81,241 records retrieved fulfilled the coding criteria. From the records fulfilling the criteria, 1012 dogs (1.29%) presented with dystocia. The most common breeds ranked according to their frequency of dystocia were short-haired Chihuahua ($n=99$, 9.79% of dystocic patients), Staffordshire bull terrier (SBT) ($n=65$, 6.4%), Jack Russell terrier (JRT) ($n=64$, 6.32%), crossbreed ($n=56$, 5.53%) and Pug ($n=52$, 5.14%). In comparison to their breed representation within the sampled population, short-haired Chihuahuas, SBT, Pugs and crossbreeds with dystocia were over-represented ($p < 0.0001$). JRT were not significantly different, with a P value of 0.0550.



Discussion

Previous studies in the UK have not differentiated between emergency and elective caesarean sections. A study describing the frequency of Caesarean sections in a large sample (13,141) of pedigree dogs in the UK indicated that the 10 breeds with the highest caesarean rates differed from the breeds in our study. In a previous study, the Boston terrier, bulldog and French bulldog had a Caesarean section rate $> 80\%$.¹ An older study, relating to 776 canine Caesarean sections, carried out in North America, showed that 58% of Caesarean sections were undertaken in an emergency setting². The most common breeds of dogs that underwent emergency surgery differed from those that underwent elective surgery. It is worth noting that the British bulldog did not appear on the top 10 commonly presented breeds list for emergency dystocia or Caesarean section in our study, which differs significantly from previous studies in the UK and North America. This may be attributed to a number of factors including breed preferences and the occurrence of elective Caesarean procedures. It may be the case that those breeds with a higher predisposition to dystocia undergo elective Caesarean procedures in the UK. This may reduce the financial loss associated with the procedure for breeders, as emergency surgery may have a higher associated cost than a scheduled elective procedure. In the UK, elective Caesarean procedures would predominantly occur during normal working hours.

Regarding the timing of Caesarean sections, some human studies suggest elective Caesarean section offers no real health advantages to either mothers or neonates, and may actually carry increased health risks compared with vaginal delivery.³ However, it has also been shown that there are fewer complications associated with planned Caesarean sections than with unplanned, emergency Caesarean sections.⁴ There is currently no evidence regarding the relative risks in bitches.⁵ Further analysis of our data may reveal additional risk factors (e.g. age, multiparity) for emergency surgery and could evaluate morbidity in the bitch and puppies. Furthermore greater interrogation of the medical management used both in those that were treated medically and those that were ultimately treated surgically, may help us to develop evidence based guidelines for this patient group.



Clinical Significance

Data from this study could be used by practitioners and breeders to identify those breeds most likely to require emergency Caesarean section in the UK. In the emergency setting, the breeds most commonly presenting for management of dystocia may differ from those traditionally perceived to have a susceptibility to dystocia.

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