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Abstract

A retrospective evaluation of the treatment of palatally impacted upper canine teeth in two district general hospitals

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Abstract:

In the absence of early diagnosis and successful interceptive management of palatal canines, surgical exposure and orthodontic alignment is the treatment of choice.

Aim to determine whether there is any difference in treatment duration or quality using a sectional arch-wire (FR) or a 'piggy-back' wire (FF) to orthodontically align an ectopic canine, following surgical exposure (Figure1). Currently, the full fixed appliance with 'piggy-back' (FF) is the most commonly used; therefore, this is determined to be the control.

A retrospective cohort study. All subjects with palatally displaced canines referred to the orthodontic departments in York and Scarborough Teaching Hospital NHS Foundation Trust from January 2007 to December 2017, who have completed their orthodontic treatment.

Sample size calculation: power set at 0.9 (90%) (= 0.10) and we have chosen a 5% significance level (= 0.05) to ensure good sensitivity. By setting the treatment length average difference at 6 months (the known clinically significance detectable root resorption from literature), the standard deviation as 0.3, and autocorrelation is assumed to be 0.5. Current literature also suggests that the average total treatment time for full fixed appliance is approximately 20 months. There is no estimate published for the sectional appliance. By allowing the failure to complete rate as 15%, the sample size required for each group would be less than 100.

Biography:

Rachel Osborne: Graduated from Newcastle University 2016 before completing foundation training in York. Following this completed dental core training years in oral and maxillofacial surgery, pediatric and special care dentistry. Email: Rachel.osborne6@nhs.net

Publication of speakers:

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