Circumcision for Balanitis Xerotica Obliterans: Histopathology outcomes and clinical correlation

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BACKGROUND

- Circumcision is a common surgical procedure yet remains the topic of ongoing debate
- A recent report by GIRFT[1] in 2021, suggests that 4000 unnecessary medical circumcisions are performed in the UK each year
- This can result in avoidable pain, risk of complications and unnecessary costs
- Balanitis xerotica obliterans (**BXO**) is a chronic, inflammatory condition of the male genitalia
- BXO is a listed therapeutic indication for circumcision[2]

AIM

- Study aims to correlate clinical examination with histopathological examination (**HPE**) within our tertiary institution

METHOD

- This is a retrospective single-centre study
- Conducted at Royal Alexandra Children's Hospital
- Medical records of patients undergoing circumcision for clinically suspected BXO between 01.02.2019 to 01.02.2023 were reviewed
- Data collection was completed by 01.09.2023
- HPE for BXO was performed using central pathology criteria
- Patients without available HPE results were excluded
- Statistical analysis was performed using Fisher's test to determine difference in proportions

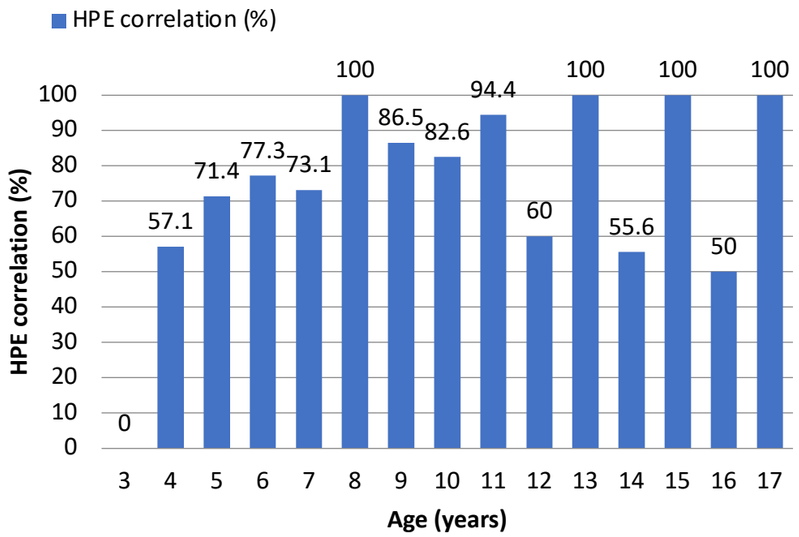

***Figure 1**. HPE-clinical correlation by age - Ungrouped*

RESULTS

- Total N=208 patients
- HPE results:
  - BXO (N=167)
  - Non-BXO inflammation/scaring (N=30)
  - No pathology (N=11)
- HPE-clinical correlation = 80.3%
- Mean age for BXO: 9.4 years (range: 4-17) and non-BXO: 8.6 years (range: 2-16) (***Fig. 1***)
- Statistically significant difference in HPE-clinical correlation for 0-5 years (52.9%) versus ≥6 years (82.7%) (***Fig. 2***)
  - p = 0.007, odds ratio 0.24

Age (years)	BXO	Inflammation or scarring	No pathology	HPE- clinical correlation	Total
0 - 5	9	5	3	52.9%	17
6 -10	109	16	5	83.8%	130
11+	49	9	3	80.3%	61

***Figure 2**. HPE-clinical correlation by age - Grouped*

CONCLUSIONS

- High HPE-clinical correlation suggests circumcisions for suspected BXO are largely appropriate
- Lower HPE-clinical correlation in boys aged <6 years
- Younger cohort may benefit from consideration of an initial trial of conservative management
- Future work to determine follow-up and outcomes after circumcision e.g. meatal stenosis

REFERENCES

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