Branchial Cleft Cysts in a Paediatric Asian Population

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ABSTRACT

Objective: Branchial cleft anomalies present fairly commonly in children as lateral neck swellings. However, the diagnosis of such anomalies may not always be straightforward. This study seeks to review the distribution of branchial cleft anomalies in an Asian paediatric population.

Methods: A retrospective chart review was performed of all paediatric patients who underwent surgery for branchial cleft anomalies between 2007 to 2011 in our tertiary paediatric hospital. The clinical notes were reviewed for all the patients who were pre-operatively assessed with imaging, intra-operative findings, and previous incision and drainage procedures. The accuracy of the imaging was not assessed.

Results: Twenty-six children underwent surgery for 27 branchial cleft anomalies in the 4-year period; one of the children had excision of bilateral fourth branchial cleft cysts. There were 7 patients (25.9%) with first, 5 patients (18.5%) with second, 2 patients (7.4%) with third, and 3 patients (11.1%) with fourth branchial cleft anomalies. Of the 27 cases, 6 patients (22.2%) had abscess with an internal opening arising from the pyriform sinus, but intra-operative dissection was unable to reveal if the branchial anomaly arose from the third or fourth branchial clefts. The patients were classified according to their clinical presentation. These 6 cases had malformations arising from either the second, third or fourth branchial cleft; however, from the initial clinical presentation, it was not possible to determine the type of branchial cleft anomaly present.

When imaging was performed pre-operatively, the accurate diagnosis of branchial cleft malformation was made on imaging in 19 of 21 cases (66.7%). This was a retrospective chart review of paediatric patients who underwent surgery for branchial cleft anomalies between 2007 to 2011 in our tertiary paediatric hospital. All patients up to 18 years of age were included. The list of patients was retrieved from electronic medical records, following which their records were studied. The patients’ presenting history and physical examination findings were recorded, and the results of investigations were noted. The incidence of second branchial cleft anomalies appears to be lower in our Asian paediatric population. Pre-operative imaging is helpful in accurately diagnosing branchial cleft anomalies, and should be considered to aid in the diagnosis and surgical planning.

CONCLUSIONS

The incidence of second branchial cleft anomalies appears to be lower in our Asian paediatric population. Pre-operative imaging is helpful in accurately diagnosing branchial cleft anomalies, and should be considered to aid in the diagnosis and surgical planning.

REFERENCES