Abstract

Introduction: The cleft lip and palate congenital malformation is a common condition, which poses a large burden of care on the young patients and their caregivers. The World Health Organization reported the prevalence of cleft lip with or without cleft palate to be 10 in 10,000 births in the United States and worldwide and 12 in 10,000 births in Canada (IPDTOC, 2011).

Post-operative palatal fistula is frequently encountered after the surgical repair of a cleft lip and palate deformity. A wide range of fistula occurrence rates, have been reported in the literature with significant variability. After conducting a systematic scoping review of the cleft palate literature we found that high quality studies were needed in this field. Additionally there were very few Canadian studies available on this subject.

We recognized the need to investigate the incidence of palatal fistula at British Columbia’s Children’s Hospital (BCCH) to be able to compare our rates with other centers worldwide. As a result of our research, we realized a gap in the literature, which was the lack of a standardized assessment protocol for the follow up of cleft lip and palate patients.

Methods: A retrospective chart review was performed at British Columbia’s Children’s Hospital to examine the incidence of palatal fistula in children with non-syndromic clefts and to identify determinants associated with higher fistula rates.

In preparation for the protocol development we conducted electronic database searches and contacted 13 major cleft centers worldwide.
**Conclusion:** The systematic review concluded that the research mainly focused on surgeries and fistula-related risk determinants. The level of evidence was low and the quality was poor. No consistent pattern was detected between fistula occurrence and any of the studied risk determinants.

The medical chart audit determined that almost a quarter of patients at BCCH presented with a palatal fistula. The significant risk determinants were severity of the cleft, less experienced surgeons, and the time period in which surgeries were performed.

The structured protocol was developed and it will help facilitate data collection of cleft patients prospectively and prevent deficiencies in current medical reporting.