

# THE CHANGING PATTERN OF MORBIDITY AND MORTALITY IN ACUTE EPIGLOTTITIS IN ADULTS

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Acute Epiglottitis or more appropriately, supraglottic laryngitis is a well known and respected entity in children between the ages of 1 and 5 years but rarely recognised by medical practitioners as a condition seen in adults. This condition is not uncommon in Singapore as reported by Stanley and Liang in 1988 (1).

There has been an increasing incidence of acute epiglottitis in adults world-wide either as a result of a greater awareness of this condition or a real increase in incidence. In Singapore, Stanley and Liang (1) reported managing 42 patients over a 4-year period in one institution and approximately one case is seen every month. Hence, it is a condition to be reckoned with in Singapore.

Historically, it is of interest to note that epiglottitis was a probable cause of George Washington's death in 1799 and a life-saving tracheostomy might have immortalised this procedure (2). LeMierre in 1936 (3) is often credited with providing the first description of supraglottitis with respiratory distress in adults. An accurate description of the pathology of the disease was published in 1941 by Sinclair (4).

In the 1950s and 1960s, there was a significant mortality rate associated with epiglottitis. Jones and Camps in 1957 (5) reported a series of 29 patients of whom 26 died secondary to upper airway obstruction. Acute epiglottitis in adults was still lethal from 1958 to 1973. There were 62 patients reported with a tracheostomy rate of 45% and a mortality rate of 32% (6). Mustoe

and Strome (7) reviewed the literature from 1973 to 1983. Out of 92 patients there were 5 deaths (mortality rate 5%) and 38 patients (26%) requiring an endotracheal tube or tracheostomy. In their paper, they had 75 patient episodes of acute epiglottitis from 1965 to 1981, of whom 6 required a tracheostomy and a zero mortality. In the local series reported by Stanley and Liang (1), from 1982 to 1985, there was zero mortality and only a 4% morbidity (2/42 artificial airway and 2/42 developed complications i.e. Ludwigs angina and Epiglottitic abscess). An artificial airway was necessary in two out of the forty-two patients on admission and none of the remaining 40 patients required an artificial airway after prompt medical treatment.

These reports have shown that the morbidity and mortality in acute epiglottitis in adults have improved over the last four to five decades. Hospital mortality should be zero and morbidity can be reduced to a minimum.

The improvement in morbidity and mortality are due to the following reasons:

- 1) Greater awareness of the condition as seen in adults thus resulting in early diagnosis and prompt medical treatment.
- 2) Vigilant monitoring of the upper airway and early intervention rather than waiting for stridor to be evident. Deeb et al (8) stressed that the upper airway obstruction is probably imminent in the presence of drooling in addition to a rising pulse and respiratory rate.
- 3) The wider use of broader spectrums and more efficacious antibiotics.

Otolaryngologists are familiar with the diagnosis and management of acute epiglottitis in adults. The main thrust of reducing morbidity and mortality should be directed to primary health-care doctors who first come into contact with patients who present with a sore throat. Acute epiglottitis in adults should be suspected in patients with severe sore throat and disproportionate oropharyngeal signs of inflammation. In the absence of facilities for indirect laryngoscopy, a soft tissue lateral radiograph of the neck is the single most important investigation. Acute epiglottitis in adults is a potentially lethal sore throat!

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## REFERENCES

1. Stanley RE and Liang TS: Acute epiglottitis in adults (The Singapore Experience). *J Laryngol Otol* 1988; 102:1017-21.
2. Darnell JC: Acute epiglottitis in adults. Report of a case and review of the literature. *J Ind State Med Assoc* 1976; 69:21-3.
3. Le Mierre A, Meyer A, Laplane R: Les septiceimies a bacille de Pfeiffer. *Ann de Med* 1936; 39:97-119.
4. Sinclair SE: Haemophilous influenza type B in acute laryngitis with bacteremia. *JAMA* 1941; 117:170-3.
5. Jones HM and Camps FE: Acute epiglottitis. *Practitioner* 1957; 178:223-39.
6. Hawkins DB, Miller AH, Sachs GB, Benz RT: Acute epiglottitis in adults. *Laryngoscope* 1973; 83:1211-20.
7. Mustoe T and Strome M. Adult epiglottitis: *Am J Otolaryngol* 1983; 4:393-9.
8. Deeb ZE, Yenson AC, Defries HO: Acute epiglottitis in the adults. *Laryngoscope* 1985; 95:289-91.