

Pathophysiology of Soar Throat

Puja Dattatray wakchoure, Prof.Himanshu Aahire , Radhika Gosavi, Radhika Aahire, Rahul pandit, Rahul bansi.

Students 1345 , professor 2
Mahavir institute of pharmacy varvandi , nashik Maharashtra

Submitted: 20-01-2024

Accepted: 30-01-2024

ABSTRACT:

There are many upper and lower throat infections are caused from covid 19 and climate change . The infection in the thorat is either caused by the viruses or bacteria 'strep throat caused from the groupa type of streptococcus bacteria while the soar throat caused from the bacteria ,viruses or allergic infections..Bacteria like streptococcus pyogens and viruses like rhino viruse. .As we know the soar throat is a common symptoms of many diseases like pharyngitis, strep throatCommon cold.,Flu (influenza),Mono (mononucleosis), Measles. Chickenpox, Coronavirus disease 2019 (COVID-19).The NSAID (non- steroidal anti-inflammatory drugs) are used in treatment of the soar throat like ibuprofen ,naproxen,aspirin,diclofenac ,etc .Some gargles are also used in the treatment of the soar throat like Betadine gargle .Some home remedies like salt water gargle ,turmeric water gargle also used for soar throat.

Key words:pharyngitis, tonsillitis, laryngitis,soar throat,throat infection.

I. INTRODUCTION:

A sore throat is pain, scratchiness or irritation of the throat that often feels when we swallow . It is the throat infection caused by the viral infection or bacterial infection , irritation by the cigarettes or smoking , acid reflux. The herbal drug curcumin is rich in an anti inflammatory properties can used to treat the soar throat.

Mode of action of the soar throat:

Soar throat is caused from the bacterial or the viral infection ,when the bacteria or virus are inter into the throat the body activates the inflammatory mediators and they produce the inflammation in that area.When the bacteria or virus enters into the body ,body cause infection at that area against the bacteria(it produces the signals that bacteria enters into the body).In case of the soar throat (pharyngitis)infection mainly caused by swelling in the back of the throat

(pharynx) between the tonsils and voice box(larynx).When the bacteria caused infection at its sits of action there is release of potent paracrine and endocrine inflammatory madiators which responsible for the immunological response of the body. It is mainly produced by activated macrophages ,t-lymphocytes and natural killer cells(it is cytokine i.e important in controlling growth activity of immune system.

Etiology:

throat infection is a most common infection now days .there are many causes through which we could have throat infection such as

- Viral infection
- Bacterial infection
- Allergies
- Irritation by ciggarates or smoking
- Acid reflux

The most commonly soar throat infection are caused by group A type streptococcus bacteria namely streptococcus pyogens and viruses like rhino virus

Pharmacology of drugs : A soar throat or throat infection caused by bacteria can be treated with antibiotics and NSAID drugs and some gargles possessing anti inflammatory properties. Since the soar throat is a bacterial infection it can not be treated by antibiotics . Some medications used to relieve the pain like acetaminophen and other mild pain relievers.Mainly the drugs like amoxicillin, antibiotics, antihistamines, azithromycin are used in treatment of soar throat

II. CONCLUSION:

Soar throat caused by viral infection , at the site of infection inflammatory mediator Tnf – Alfa released and caused inflammation to give single to body of entry of virus . This is inbuilt mechanism of body . Some home remedies and treatment or medications are available for treatment

of soar throat . Soar throat also caused due to cold ,cough and climate change.

REFERENCE :

- [1]. Christensen AM, Willemoes-Larsen H, Lundby L, Jakobsen KB. Postoperative throat complaints after tracheal intubation. *British Journal of Anaesthesia* 1994; 73: 786–7.
- [2]. Harding CJ, McVey FK. Interview method affects incidence of postoperative sore throat. *Anaesthesia* 1987; 42: 1104–7.
- [3]. Herlevsen P, Bredahl C, Hindsholm K, Kruhoffer PK. Prophylactic laryngo-tracheal aerosolized lidocaine against postoperative sore throop *Scandinavica* 1992; 36: 505–7.
- [4]. Jorgensen LN, Weber M, Pedersen A, Munster M. No increased incidence of postoperative sore throat after administration of suxamethonium in endotracheal anaesthesia. *Acta Anaesthesiologica Scandinavica* 1987; 31: 768–70.
- [5]. Joshi GP, Inagaki Y, White PF, et al. Use of the laryngeal mask airway as an alternative to the tracheal tube during ambulatory anesthesia. *Anesthesia and Analgesia* 1997; 85: 573–7.
- [6]. Stout DM, Bishop MJ, Dwersteg JF, Cullen BF. Correlation of endotracheal tube size with sore throat and hoarseness following general anaesthesia. *Anesthesiology* 1987; 67: 419–21.
- [7]. Stride PC. Postoperative sore throat: topical hydrocortisone. *Anaesthesia* 1990; 45: 968–71.
- [8]. Winkel E, Knudsen J. Effects on the incidence of postoperative sore throat of 1 percent cinchocaine jelly for endotracheal intubation. *Anesthesia and Analgesia* 1971; 50: 92–4.
- [9]. Dingley J, Whitehead MJ, Wareham K. A comparative study of the incidence of sore throat with the laryngeal mask airway. *Anaesthesia* 1994; 49: 251–4.
- [10]. Keller C, Sparr HJ, Brimacombe JR. Laryngeal mask lubrication – a comparative study of saline versus 2% lignocaine gel with cuff pressure control. *Anaesthesia* 1997; 52: 586–602.
- [11]. Wakeling HG, Butler PJ, Baxter PJC. The laryngeal mask airway: a comparison between two insertion techniques. *Anesthesia and Analgesia* 1997; 85: 687–90.
- [12]. Loeser EA, Bennett GM, Orr DL, Stanley TH. Reduction of postoperative sore throat with new endotracheal tube cuffs. *Anesthesiology* 1980; 52: 257–9.
- [13]. Loeser EA, Kaminsky A, Diaz A, Stanley TH, Pace NL. The influence of endotracheal tube cuff design and cuff lubrication on postoperative sore throat. *Anesthesiology* 1983; 58: 376–9.
- [14]. Loeser EA, Machin R, Colley J, Orr D, Bennet GM, Stanley TH. Postoperative sore throat – importance of endotracheal tube conformity versus cuff design. *Anesthesiology* 1978; 49: 430–2.
- [15]. Loeser EA, Orr DL, Bennett GM, Stanley TH. Endotracheal tube cuff design and postoperative sore throat. *Anesthesiology* 1976; 45: 684–7.
- [16]. Loeser EA, Stanley TH, Jordan W, Machin R. Postoperative sore throat: influence of tracheal tube lubrication versus cuff design. *Canadian Anaesthetists’ Society Journal* 1980; 27: 156–8.
- [17]. Loeser EA, Hodges M, Gliedman J, Stanley TH, Johansen RK, Yonetani D. Tracheal pathology following short term intubation with low and high pressure endotracheal tube cuffs. *Anesthesia and Analgesia* 1978; 57: 577–9.
- [18]. Seegobin RD, van Hasselt GL. Aspiration beyond endotracheal cuffs. *Canadian Anaesthetists’ Society Journal* 1986; 33: 273–9.
- [19]. Stanley TH, Loeser EA. Minimizing sore throat [letter; reply]. *Anesthesiology* 1979; 51: 488–9.
- [20]. Stanley TH. Nitrous oxide and pressures and volumes of high and low pressure endotracheal tube cuffs in intubated patients. *Anesthesiology* 1975; 42: 637–40.
- [21]. Raeder JC, Borchgrevink PC, Sellevold OM. Tracheal tube cuff pressures. *Anaesthesia* 1985; 40: 444–7.
- [22]. Patel RI, Oh TH, Chandra R, Epstein BS. Tracheal tube cuff pressure. *Anaesthesia* 1984; 39: 862–4.
- [23]. Mandoe H, Nikolajsen L, Lintrup U, Jepsen D, Molgaard J. Sore throat after endotracheal intubation. *Anesthesia and Analgesia* 1992; 74: 897–900.

- [24]. Jensen PJ, Hommelgaard P, Sondergaard P, Eriksen S. Sore throat after operation: influence of tracheal intubation, intracuff pressure and type of cuff. *British Journal of Anaesthesia* 1982; 54: 453–7.
- [25]. Latto P. The cuff. In: Latto IP, Vaughan RS, eds. *Difficulties in Tracheal Intubation*. London: W.B. Saunders, 1997: 51–78.
- [26]. Capan LM, Bruce DL, Patel KP, Turndorf H. Succinylcholine induced postoperative sore throat. *Anesthesiology* 1983; 59: 202–6.
- [27]. Brain AJ. *The Intavent Laryngeal Mask Instruction Manual*, 2nd edn. 1991: 7–16.
- [28]. Brimacombe J, Berry A. Insertion of the laryngeal mask airway – a prospective study of four techniques. *Anaesthesia and Intensive Care* 1993; 21: 89–92.
- [29]. Rieger A, Brunne B, Striebel HW. Intracuff pressures do not predict laryngopharyngeal discomfort after use of the laryngeal mask airway. *Anesthesiology* 1997; 87: 63–7.
- [30]. McKinney B, Grigg R. Epiglottitis after anaesthesia with a laryngeal mask. *Anaesthesia and Intensive Care* 1995; 23: 618–19.
- [31]. Harris TM, Johnston DF, Collins SRC, Heath ML. A new general anaesthetic technique for use in singers: the Brain laryngeal mask airway versus endotracheal intubation. *Journal of Voice* 1990; 4: 81–5.
- [32]. Lee JJ. Laryngeal mask and trauma to uvula [letter]. *Anaesthesia* 1989; 44: 1014–15.
- [33]. Turnbull RS. Benzylamine hydrochloride (Tantum) in the management of oral inflammatory conditions. *Journal of the Canadian Dental Association* 1995; 61: 127–34.
- [34]. Kambic V, Radsel Z. Intubation lesions of the larynx. *British Journal of Anaesthesia* 1978; 50: 587–90.
- [35]. 61 Mecca RS. Postoperative recovery. In: Barash PG, Cullen BF, Stoelting RS, eds. *Clinical Anaesthesia*. Philadelphia, PA: Lippincott-Raven, 1997: 1279–1303.
- [36]. Burgard G, Mollhoff T, Prien T. The effect of laryngeal mask cuff pressure on postoperative sore throat incidence. *Journal of Clinical Anesthesia* 1996; 8: 198–201.
- [37]. Morris GN, Marjot R. Laryngeal mask airway performance: effect of cuff deflation during anaesthesia. *British Journal of Anaesthesia* 1996; 76: 456–8.
- [38]. Brimacombe J, Berry A, Brain AJ. Optimal intracuff pressures with the laryngeal mask [letter; comment]. *British Journal of Anaesthesia* 1996; 77: 295–6.
- [39]. Rieger A, Brunne B, Hass I, et al. Laryngo-pharyngeal complaints following laryngeal mask airway and endotracheal intubation. *Journal of Clinical Anesthesia* 1997; 9: 42–7.
- [40]. Browne B, Adams CN. Postoperative sore throat related to the use of a Guedel airway. *Anaesthesia* 1988; 43: 590–1.
- [41]. Monroe MC, Gravenstein N, Saga-Rumley S. Postoperative sore throat: effect of oropharyngeal airway in orotracheally intubated patients. *Anesthesia and Analgesia* 1990; 70: 512–16.
- [42]. Keane WM, Rowe LD, Denny JC, Atkins JP. Complications of intubation. *Annals of Otolaryngology and Laryngology* 1982; 91: 584–7.
- [43]. Hilding AC. Laryngotracheal damage during intratracheal anesthesia. *Annals of Otolaryngology* 1971; 80: 565–81.
- [44]. Donnelly WH. Histopathology of endotracheal intubation. *Archives of Pathology* 1969; 88: 511–20.
- [45]. Donnelly WA, Grossman AA, Grem FM. Local sequelae of endotracheal anesthesia as observed by examination of one hundred patients. *Anesthesiology* 1948; 9: 490–7.
- [46]. Peppard SB, Dickens JH. Laryngeal injury following short term intubation. *Annals of Otolaryngology and Laryngology* 1983; 92: 327–30.
- [47]. Steele Holley H, Gildea JE. Vocal cord paralysis after tracheal intubation. *Journal of the American Medical Association* 1971; 215: 281–4.
- [48]. Alexopoulos C, Lindholm CE. Airway complaints and laryngeal pathology after intubation with an anatomically shaped endotracheal tube. *Acta Anaesthesiologica Scandinavica* 1983; 27: 339–44.
- [49]. Jones MW, Catling S, Evans E, Green DH, Green JR. Hoarseness after tracheal intubation. *Anaesthesia* 1992; 47: 213–16.



-
- [50]. Jackson C. Contact ulcer granuloma and other laryngeal complications of endotracheal anesthesia. *Anesthesiology* 1953; 14: 425–36.
- [51]. O’Neill JE, Giffin JP, Cottrell JE. Pharyngeal and esophageal perforation following endotracheal intubation. *Anesthesiology* 1984; 60: 487–8.
- [52]. Hagihira S, Takashina M, Taenaka N, Yoshiya I. Placement of double lumen tubes with a stylet [letter]. *Canadian Journal of Anaesthesia* 1997; 44: 101.
- [53]. Heath KJ, Palmer M, Fletcher SJ. Fracture of the cricoids cartilage after Sellick’s manoeuvre. *British Journal of Anaesthesia* 1996; 76: 877–8.
- [54]. Lloyd Jones FR, Hegab A. Recurrent laryngeal nerve palsy after laryngeal mask airway insertion. *Anaesthesia* 1996; 51: 171–2.