

6) 喉頭 stroboscopy 検査에서 聲帶의 對稱性, 規則性, 振幅, 粘膜波動 및 聲門閉鎖에 對해서 觀察하였다.

7) 喉頭手術前後의 音聲検査와 stroboscopy 検査의 比較는 手術後의 成績이 매우 좋다.

15. Suspension Laryngoscope 下에서 경험한 喉頭腫塊 63例에 대한 臨床統計의 考察

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耳鼻咽喉科領域의 microsurgery 는 中耳手術을 위한 Otomicrosurgery 에 이어 최근에는 喉頭 특히 聲帶의 手術에도 크게 利用되는 傾向을 보이고 있다.

著者들은 1974年 8月부터 1979年 4月까지 4年5個月間 本院에서 施行하였던 Suspension Laryngoscope 을 이용한 micro-surgery 下에서 切除한 喉頭腫塊 63例에 對해 臨床統計의 分析하여 다음과 같은 結果를 얻었기에 文獻考察과 함께 報告하는 바이다.

1) Suspension Laryngoscope 은 總 63例로 男子 34例(54%), 女子 29例(46%)이었고 男女比는 1.2 : 1이었다.

2) 年齡別로는 30代가 20例(31.7%)로 가장 많았으며 40代(15.9%), 20代(14.3%), 50代(12.7%)의 順이었다.

3) 手術部位는 聲門部가 61例(96.8%) 聲門上部가 2例(3.2%)이었다.

4) 聲門部位別로는 兩側이 24例(38.1%), 右側 22例(34.9%), 左側 15例(23.8%)의 順이었다.

5) 질병別로는 組織生檢結果에 準하였으며 喉頭結節이 30例(47.6%)로 가장 많았으며, 扁平上皮癌 10例(15.9%), 喉頭茸腫 8例(12.7%), 喉頭乳頭腫 5例(7.95%)이고 기타의 非特異性炎症이 5例(7.95%)順이었다.

16. 인위적인 기도협착이 동맥혈액가스에 미치는 영향

중앙의대

정해영 · 김중환

마취과

조영삼

상부기도가 갑자기 폐쇄증을 일으켜 심한 호흡곤란

증을 호소하는 환자에 대하여 응급으로 기도 및 호흡을 확보하여야 하며 이와같은 예를 임상에서 가끔 직면하게 된다.

이러한 환자에게 적절한 기도확보는 생명을 유지시킬 수 있다.

저자는 토끼를 대상으로 기존 기관의 직경율(약 3.4 mm) 약 1/3(1.2mm), 1/4(0.8mm) 및 1/6(0.6mm)로 협소시켜 생리적 변화를 추적하였다.

결과는 다음과 같았다.

1) 혈액가스의 분석결과 직경을 약 1/3로 감소시켰던 군에서 생리적 변동이 별로 없었다.

2) 직경을 약 1/4, 1/6로 감소시켰던 군에서는 PaO₂, PaCO₂ 및 pHa 에 뚜렷한 변화를 나타내어 저산소혈증, 과탄산혈증 및 대사성산증을 나타내었다.

3) 호흡저항은 모든 군에서 뚜렷하게 증가하여 1회 호흡량도 현저하게 감소하였는데 16G(직경 1.2mm 호흡로)에서는 호흡수의 증가로 폐포환기가 적당하게 영위됨에 따라서 혈액가스 및 vital signs 의 변동이 별로 없던 것으로 보아 토끼에서는 이 정도의 호흡로 폐쇄에는 1시간까지 견딜 수 있음을 알았다.

17. 음성기관의 공기역학적 고찰

연세의대

김기령 · 박인용 · 김희남 · 심상열 · 최홍식

음의 생성은 성문하의 기류가 성대에서 조절되고 성대상부의 Vocal tract 에서 modulation 되어 생성되므로 후두에 이상이 생기면 발성시 후두를 통과하는 기류에 변화가 오게 된다.

타국에서는 Döhne(1944)과 Arnold(1955, 1958)등 여러학자들이 후두질환에 따른 공기역학적 변화를 측정하여 후두질환의 진단에 기여한 바 크다.

본 저자들은 후두질환에 따른 공기역학적 측정에 앞서 이에 대한 정상역치를 측정하여 그 기준치로 하고자 21~30세의 정상인 남녀 각각 20명을 대상으로 Collins 회사제 Respirometer 를 이용하여 평균기류유출률, 최대발성량, 최대발성시간 및 발성속력치 등을 측정하였기에 제 1보로서 보고하는 바이다.

the vocal cord, regularity of vibration, amplitude of vibration, wave on the mucosa and glottic closures are observed by stroboscopic examination.

7) Postoperative voice test and stroboscopic examination revealed good result in compare pre-operation with post-operation.

**15) The Clinico-Statistical Analysis for
63 Cases of Laryneal Mass with
Suspension Laryngoscope**

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Microsurgery in otolaryngological field have been used of otomicrosurgery for middle ear operation and recently tend to be used more frequently for laryngeal surgery.

The authors had analyzed 63 cases of laryngeal mass under microsurgery with Suspension Laryngoscope from August '74 to April '79.

The results are as follows;

1) The total cases of Suspension Laryngoscope was 63 ; 34 cases (54%) were male and 29 cases (46%) were female. Sex ratio was 1.2:1.

2) Age distribution shows 20 cases (37%) in 3rd decade, 10 cases (15.9%) in 4th decade, and 9 cases (14.3%) in 2nd decade.

3) The site of operation was 61 cases (96.8%) from glottic and 2 cases (3.2%) from supraglottic region.

4) The site of glottic region was 24 cases (38.1%) from bilateral, 22 cases (34.9%) from Rt., and 15 cases (14.3%) from Lt.

5) Pathologic findings of biopsy was Lar-

yngeal nodule in 30 cases (47.6%), Squamous cell carcinoma in 10 cases (15.9%), Laryngeal polyp in 8 cases(12.7%), Laryngeal Papilloma in 5 cases (7.9%), and Non-specific inflammation in 5 cases (7.9%).

**16) Experimental Study of the Influence
of the Upper Airway Obstruction on the
Blood Gas Analysis**

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Acute obstruction of the upper airway from trachea, a foreign body or laryngospasm may lead to death in a few minutes.

The immediate restoration of an adequate airway in these patients may be lifesaving.

Spontaneous respiration by means of a needle inserted into the trachea was studied in 21 rabbits using 16, 18, and 20 gauge extracatheters.

The results are as follows;

1) Airway resistance was markedly increased in all experimental animals, consequently tidal volume was also significantly decreased, but this seems to be compensatory by increased of respiratory frequency in 16G group.

2) Blood gas analysis revealed adequate pulmonary ventilation through the constricted airway (about 1/3 of normal sized trachea) during 60 minutes. In the other hand, hypercarbia, hypoxemia, and metabolic acidosis were developed in the group with severe constriction of the upper airway (about 1/4—1/6 of normal sized trachea).

3) The further study is postulated to confirm the the possibility of application of

needle tracheostomy in man, but the rabbits were tolerable to the constricted airway with a small sized needle (16G) into the trachea for 60 minutes.

17) The Aerodynamic Study of the Vocal Tract

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Döhne (1944) has studied the consumption of air during phonation in patients with dysphonia and Arnold (1955, 1958) reported that the maximum phonation time is frequently reduced to a few seconds in paralytic dysphonia. Also, Nishikawa investigated the relation among the vital capacity, maximum phonation time, calculated mean flow rate and various vocal characteristics in patients with hoarseness.

Authors have studied the aerodynamic characteristics of the vocal tract in the following aspects, using 9 L. Respirometer made in Collins Inc.;

1. Maximum phonation time
2. Maximum phonation volume
3. Mean flow rate
4. Vocal velocity index

18) 3 Cases of the Foreign Bodies in the Air Way

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Frequently, we have been noted foreign bodies in air way, which can produce different signs and symptoms needed for differential diagnosis with other diseases.

Occasionally, it can be followed by some pulmonary complications and removal difficulty.

Therefore it can be serious and fatal in few cases, especially in children.

Three cases were evaluated with clinical and roentgenographic features of air way obstruction due to foreign bodies and discussed with previous many literatures.

19) Esophageal Foreign Bodies with Periesophageal Abscess

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Foreign bodies in air and food passages are not uncommon problems in the otolaryngological fields and its etiological factors are closely related to the social environment and mode of life. It may complicate of esophageal perforation, periesphagitis, periesophageal abscess, mediastinitis, pneumothorax, pyothorax and lung abscess which