

급성편도선염에서 편도상피세포의 세균부착성에 관한 연구

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편도선의 염증반응은 세균이 편도상피세포에 부착되는 것으로부터 시작되며 부착된 세균은 증식하여 집락을 형성한 후 독소를 분비하여 점막 장벽을 뚫고 조직에 손상을 일으킨다. 저자들은 급성편도선염의 병태를 이해하기 위하여 생체내에서 급성편도선염 환자군과 정상인에서 상피세포의 세균부착성에 대한 차이를 알아보고자 본 실험을 시행하였다.

급성편도선염 환자군 20례와 정상인 대조군 20례를 대상으로 편도선부위를 면봉으로 문지른후 세포혼합물을 Acridine orange로 염색하여 형광현미경하에서 관찰하였다. 50개의 편도상피세포에서 부착된 세균수를 계산하였다. 또한 동시에 균배양을 시행하였다.

급성편도선염군은 대조군보다 상피세포에서 10% 이상 부착된 세균수가 많았으며 ( $p < 0.05$ ), 상피세포에 부착된 세균수는 연령과 유의한 상관관계를 보여주었다.

Study on attachment of bacteria to tonsillar epithelial cell  
during acute tonsillitis

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To cause invasive disease, microorganism must attach firmly to the tonsillar epithelial cell. Once attached, the microorganisms can proliferated, form colonies and release extracellular toxins which can injure the underlying cells.

The purpose of present study was to ascertain whether or not there exist in vivo differences in bacterial attachment between patients with acute tonsillitis and healthy individuals as a control.

This study was carried out on 20 patients suffering from acute tonsillitis and 20 healthy persons used as control. After scraping of the surface of tonsil, cellular mixture was stained with Acridine orange and the number of attached bacteria was calculated using a fluorescent microscope. The adherence rate was calculated as number of bacteria attached to each of 50 epithelial cells. simultaneously, we performed conventional bacterial culture.

Conclusively, the attachment of more than 10% bacteria to the tonsillar epithelial cell was significantly greater in acute tonsillitis group than control group, and there was a significant correlation between age and the number of the attached bacteria to the epithelium.