

Glandular Fever Test in Quinsy Patients

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Abstract - Title: Glandular Fever Test in Quinsy Patients: RF068

Problem Addressed:

Incidence of quinsy is quite rare in glandular fever patients¹. Early reports have suggested the implications of corticosteroids in the development of such abscess². A retrospective study is carried out at a district general hospital in UK to know the presence of positive glandular fever test in peritonsillar abscess patients.

Methods and Measures:

Through the hospital computerised medical record system (PAS), the lab data of all the consecutive quinsy patients admitted in the ward between March 2004 and June 2005 is studied for a positive glandular fever test.

Results:

One out of 100 patients of quinsy had positive glandular fever test (1%)¹, in which case steroid was used for potential airway difficulty. The organism grown was mixed anaerobic infection and responded to the appropriate antibiotic.

Conclusions:

In all tonsillitis or quinsy patients, who were having high lymphocyte count, glandular fever test should be done. Steroid should be avoided unless a potential airway risk is vehemently present.

Clinical Significance of Study:

1. Use of steroid has increased the chance of getting peritonsillar abscess in glandular fever patients.
2. In our hospital, the laboratory policy is to do the glandular fever test on blood samples in all tonsillitis patients who are having high lymphocyte count. This can be extended for peritonsillar abscess patients as well

Introduction

- Quinsy [Gr. *Kynanche* sore throat] better known as peritonsillar abscess is a collection of pus between the fibrous capsule of the tonsil and the superior constrictor muscle of the pharynx.
- It may arise de novo or as a complication of acute tonsillitis. Glandular fever is among one of the significant cause of acute tonsillitis.
- Exact incidence of quinsy in a glandular fever patient is not known.
- Early reports have suggested the implications of corticosteroids in the development of such abscess (Parulekar et al and handler S. D. et al).

Methods and measures

- Incidence of quinsy is quite rare in glandular fever patients¹. A retrospective study is carried out at a district general hospital in UK to know the presence of positive glandular fever test in peritonsillar abscess patients.
- Through the hospital computerised medical record system (PAS), the lab data including routine blood test and results of monospot test of all the consecutive quinsy patients admitted in the ward between Mar' 04 and Jun' 05 is retrieved for a positive glandular fever test.

Glandular fever tests are not required for quinsy patients

Steroids should not be indiscriminately prescribed in Glandular Fever patients

Results

- Median age group was between 10-40 years and Male to female ratio was 2:1
- One patient out of 100 patients of quinsy had positive glandular fever test (1%) at the time of presentation.
- Short course of steroid was used for potential airway difficulty in this case.
- The organism grown was mixed anaerobic infection and responded to Metronidazole.
- Median Hospital stay for quinsy patient was 3 days with or without glandular fever..

Discussion

- Quinsy is often regarded as a complications of tonsillitis.
- It was hypothesized that spread of infection in tonsillitis and development of quinsy is because of the presence of anaerobic infection (Jokinen et al 1985).
- The neck space infection following tonsillitis is more common in debilitated patient with conditions which predispose to infection e.g. diabetes or immuno-suppressed states.
- Glandular fever caused by EBV, infects B-lymphocytes and causes tonsillitis and pharyngitis. Humans are the only source of EBV and transmission is by the respiratory route (Thereby also known as kissing disease). Incubation period is ~ 30d.
- Massive B- cell proliferation leads to the production of heterophile antibody by second week (Positive Monospot test).
- In response to the infected B- cells, CD8+ T- lymphocyte exhibits both suppressor and cytotoxic function and present as an atypical mononucleosis cell (Forms 20-40% of white blood cells). There is reversal of CD4+/- CD8+ T lymphocytes ratio.

- Many of the clinical manifestations of infectious mononucleosis may result, atleast in part, from the host immune response, which is also effective in reducing the number of EBV-infected B-lymphocytes to <1/ 106 of circulating B-lymphocyte⁶.
- Diagnosis of glandular fever is based on clinical findings and lab tests. Altered lymphocyte/ white cell count ratio above 0.35 has a sensitivity of 90% and specificity of 100%⁵. In our study also the L/WBC ratio is >0.35.
- Monospot test (Glandular fever test) also known as rapid slide test based on horse erythrocyte agglutination was considered as a diagnostic test but It is unreliable in children of <5 yr. Monospot test has a false positive rate of 10%. Currently Anti VCA IgM antibody to EBV is considered as the most specific test⁶.
- Threatened obstruction of the airway may occur in anginose form of glandular fever specially when there is secondary oedema of the neck. Progressive worsening of airway symptoms occurs in less than 5% of patients and warrants hospital admission⁶.
- Threatened obstruction of the airway should be treated with intravenous fluid, humidified oxygen and systemic steroid. Short course of steroid (<2 weeks) may have a dramatic symptomatic effect.
- In view of the potential and unknown hazards of immuno-suppression for a virus infection with oncogenic complication, corticosteroid should not be used in uncomplicated cases of infectious mononucleosis⁶.
- In cases where significant secondary infection is fully substantiated, antibiotics may be employed⁷.
- Prognosis of glandular fever is good and children recover better than adults. Death is rare and usually results from rupture of the spleen (<0.5%) or severe neurological involvement⁶.

Conclusions

- Use of steroid has increased the chance of getting peritonsillar abscess in glandular fever patients. Steroid should be avoided unless a potential airway risk is vehemently present
- Glandular fever test should be done only in those tonsillitis or quinsy patients in whom lymphocyte count is high or L/WBC ratio is more than 0.35.
- In our hospital, the laboratory policy is to do the glandular fever test on blood samples in all tonsillitis patients who are having high lymphocyte count. This policy can be extended for peritonsillar abscess patients as well.