

A biochemical study on hidden 19S IgM rheumatoid factor and the disease activity of Egyptian patients with seronegative juvenile rheumatoid arthritis.

Thesis

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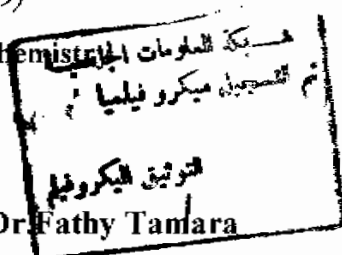
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the 1990s, the number of people in the UK who are employed in the public sector has increased by 1.5 million, from 2.5 million in 1980 to 4 million in 1995. The public sector has also become an important employer of women, with 5.5 million women employed in the public sector in 1995, compared with 4.5 million in 1980.

There are a number of reasons why the public sector has become an important employer of women. One reason is that the public sector has a high proportion of women in its workforce. In 1995, 88% of the public sector workforce were women, compared with 78% in 1980. This is due to a number of factors, including the fact that the public sector has a high proportion of jobs that are traditionally held by women, such as teaching, nursing, and social work.

Another reason why the public sector has become an important employer of women is that it has a high proportion of jobs that are full-time. In 1995, 68% of the public sector workforce were employed full-time, compared with 58% in 1980. This is due to a number of factors, including the fact that the public sector has a high proportion of jobs that are essential to the functioning of the state.

A third reason why the public sector has become an important employer of women is that it has a high proportion of jobs that are well-paid. In 1995, the average salary of a public sector employee was £18,000, compared with £15,000 in 1980. This is due to a number of factors, including the fact that the public sector has a high proportion of jobs that are in the higher grades of the public sector pay scale.

There are a number of other reasons why the public sector has become an important employer of women. One reason is that the public sector has a high proportion of jobs that are secure. In 1995, 88% of the public sector workforce were employed on permanent contracts, compared with 78% in 1980. This is due to a number of factors, including the fact that the public sector has a high proportion of jobs that are essential to the functioning of the state.

Another reason why the public sector has become an important employer of women is that it has a high proportion of jobs that are flexible. In 1995, 12% of the public sector workforce were employed on flexible contracts, compared with 2% in 1980. This is due to a number of factors, including the fact that the public sector has a high proportion of jobs that are essential to the functioning of the state.

A third reason why the public sector has become an important employer of women is that it has a high proportion of jobs that are well-located. In 1995, 68% of the public sector workforce were employed in the London region, compared with 58% in 1980. This is due to a number of factors, including the fact that the public sector has a high proportion of jobs that are essential to the functioning of the state.

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M. Khaled

the 'information' and 'communication' fields. The 'information' field is defined as:

...the study of the nature, creation, organisation, storage, retrieval, dissemination and use of information, and the social and cultural contexts in which these activities take place. (p. 1)

The 'communication' field is defined as:

...the study of the nature, creation, organisation, storage, retrieval, dissemination and use of communication, and the social and cultural contexts in which these activities take place. (p. 1)

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ABSTRACT

Mohammed Khaled Mohammed. A biochemical study on hidden 19S IgM rheumatoid factor and the disease activity of Egyptian patients with seronegative juvenile rheumatoid arthritis. Unpublished Doctor of Philosophy dissertation, Ain Shams University, Faculty of science, Biochemistry department, 1996.

In the present study the hidden rheumatoid factor was separated from the sera of seronegative juvenile rheumatoid arthritis patients by two methods (NaCl dissociation and ion-exchange chromatography) and its titer was correlated with serum circulating immune complexes and disease activity.

The simple, cheap and routine NaCl dissociation method yields similar hidden rheumatoid factor titers as the ion-exchange chromatography method. Also hidden rheumatoid factor titers correlated significantly with disease activity as indicated from the following observations .

The erythrocyte sedimentation rate, C3 , C4, circulating immune complexes, and interleukin 1 β were significantly increased in hidden rheumatoid factor positive patients when compared to the hidden rheumatoid factor negative patients and normal subjects.

The C-reactive protein was positive in almost all the hidden rheumatoid factor positive patients and to lesser extent in hidden rheumatoid factor negative ones.

The synovial fluid of hidden rheumatoid factor positive patients was more severely inflamed than in the hidden rheumatoid factor negative ones as observed from the marked increase in the levels of total leucocyte count, polymorphonuclear% , total protein, and acid phosphatase activity and the more detectable decrease in glucose level.

In conclusion, hidden rheumatoid factors were shown to be present in 60% of seronegative juvenile rheumatoid arthritis patients and the presence of hidden rheumatoid factor correlated with disease activity which may prove to be a valuable tool for the serologic diagnosis of juvenile rheumatoid arthritis and a mean of following disease activity.

The separation of hidden rheumatoid factor by NaCl dissociation method provides a simple, cheap, and accurate method suitable for most medical laboratories.

Key words : Juvenile rheumatoid arthritis, Rheumatoid factors, Hidden rheumatoid factors ,Acute phase proteins , Synovial fluid .

LIST OF ABBREVIATIONS

ANA	Antinuclear antibody
APF	Antiperinuclear factor
C3	The 3 rd complement component
C4	The 4 th complement component.
CIC	Circulating immune complexes.
CRP	C-reactive protein
EDTA	Ethylenediamine
ELISA	Enzyme linked Immunoabsorbent Assay.
ESR	Erythrocyte sedimentation rate.
HEP-2	Human epithelial cell-2.
HRF	Hidden rheumatoid factor.
hsp	Heat shock protein
IL-1	Interleukin-1
JRA	Juvenile rheumatoid arthritis.
LFT	Latex fixation test.
PLM	Polymorphonuclear leucocyte
PGs	Prostaglandins.
RA	Rheumatoid arthritis.
RCRI	Rheumatoid factor cross reactive idiotyp.
RF	Rheumatoid factor
RW	Rose-Waaler test.
TLC	Total leucocyte count.

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