Brucellosis in Babylon

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Abstract

Brucellosis is an endemic disease in our country. We studied 50 patients with acute Brucellosis. Their diagonsis were made from clinical pictures and positive agglutination test, the study shows female preponderance with retio of 3:2 , and 54% of the patients were between the age of (10-25) years.

Symptomatology were described, Fever, headche, sweating and rigors were common manifestations. Arthritis is seen in 6% of the patients and adenopthy is not a rare findings. Splenomegaly is a finding in 40% of the patients and one patient with splenic abscess and Brucellosis had been reported. B. abortus agglutination test is positive in 64% of the patients. Most of the patients were successfully treated with combination of streptomicin and tetracycline.

Introduction

Brucellosis is an endemic disease in Iraq. Brucella is an intracellular, non - spore forming, non- encapsculoted, gram - negative coccobacillus and 3 Spp are recognised. B. Abortus, B.melitensis, and B. Suis. (Table 1).

Brucellosis is a zoonosis & has a world-wide distribution, and on world- wide base the prevelance of the disease correlates closely with the extent of animal Brucellosis in a given country[1]. The manifestations of symptomatic Brucellosis may be divided into: acute Brucellosis, localised disease and chronic Brucellosis[2].

Brucella endotoxin is responsible for systemic symptoms; and host hypersensitivity account for the formation of granuloma[3]. The organism gains entry into the human body via the mouth and unpasteurized dairy products ingestion is the main source of infection, though less frequently organism may enter via respiratory tract, genital tract or abraded skin[2,3].

On average approx. 200 cases of Brucellosis are repoted in U.S every year,[4] and B. abortus is the most common and usu. causes mild disease; where as B.melitensis usu.

Causes more sever acute disease.

Scotland was declared , Brucellosis attested area in Jan. 1980, signfying that the disease had been eradicated from its cattle. and the success of this eradication scheme is shown by drop in the number of human cases of Brucellosis in scotlond, where it was once a common disease, from atmost 400 in 1970 to 76 in 1979[5,6].

Studies in animal in Iraq[7] have shown that. Brucellosis is prevelant among goats and sheep. Brucellosis is neither rare nor mild illness among adults and children in Iraq[8], For this reason, a study of 50 patients with Brucellosis had been done to demonstrate the variousclinical aspects of this disease.

Materlal and methods

The study period covered the year 1992; patient clinically suspected of having Brucellosis, had a Brucella agglutination test. Antisera used for agglutination test were supplied by vac & sera institute of Iraq Each patients had peripheral blood examination; urine analysis and chest xray. Affected jots in three patients with arthitis were xrayed, ordirary blood culture had been in 10 patients.

Ultra-sound examination of the abdomin made for one pregnant lady with acute Brucellosis.

Results

50 patients with Bruellosis; their diagnosis had been based on clinical features and positive agglutination test, these patients had been evaluated and studied with the following results:

* Sex incidence:
Female to male ratio =3:2

* Age distribution:
Table 11 shows that about 54% of the cases were between the age of (10-25) years; the mean age of incidence is (26) years.

*Duration of symptoms before diagosis:
Range= (1WK - 5 months)
50%= 1WK, 10%= 2WK,
14%=1 month.

*Symptomatology and clinical features were identfied and summerized in table (111) and are compared with the features describad in two other studies.

*Five of the studied patients a showed a strong familial incidence of the disease and this might coincide with the high incidence of infected animals at their homes and the consumptio of contaminated dairy products, and in 23% of the studied cases had animals at their home including cattles, sheep and goats.

*All the patients had fever and it is a low grade, nocturnal, and 8% of the cases it reaches 39.5°C.

Backache is a symptom in 22% of the studied patients, and 6% of the patients had acute arthrtis, two had involvement of the knee joints and

one had sacroilliits, on radological evdence of bone erosions had been deamontrated. Orchtis is the seen n one patient (2%).

In the course of our study; a pregnant lady during her 2nd. trmester of pregnancy admitted to hospital with hepato splenomegaly and sever pain and tenderness at the left hypo-chondrial region associated with sever pallor and anaemia, ultrasound examination reveals a large splenic abscess. Her couition improved after 4 weeks combination treatment of Rifampicine and cotrimoxazal (septrin); but, the abscess remained, and later surgical drainage with splenetomy performed for this lady.

Most of our patients had been successfully treated with combination of tetracycline and streptomicin for 4 weeks. We have not seen a cases of relapse in the cases which we were able to look after them over a period of 1 year follow up.

In studing the incidence of Brucellosis theroghout 1 year period (Table IV) (month incidence), it had been demonstrated that 84% of the patients were seen in the months from March to Augest; ths mght coincied with the period of maximum milk yeild by sheep and goats.

Discussion

It is clear from this study that the incidence of Brucellosis in pur country is higher that generally realised. Human Brucellosis in Mediterranean and Middle Eastern countries is predominantly due to infection with Brucella mellitensis [9,10]. However, in our 50 cases of Brucellosis 64% showed Br. Abortus positive agglutination test and also higher percentage,85% of patints in the patients studied in the north of Iraq had (+ve) Br. abortus agglutination test, we believe that, this might be due to high percentage of the people who consume cows milk and unpasteurized milk products and furthermore a good number of people have cattles at their home, in addition anti-sera againts B.melitensis might show cross reaction with Br. abortus posilive sera.

There is higher female indcidence in the result of 52 cases in the north of Iraq that in the presents series; 3:1 and 3:2 ratios respectively.

Also, the duration of symptoms befor the dignosis is longer in the series from the north of Iraq as compared with our present series. In the north of Iraq series the duration of symptoms before the diagnosis in 52 cases; range (1WK-3years) and a mean of (10.4 WK) and 20%=1 month and 21%= WK.

In general practice workload, backpain represents (2.6%) and it is a common cause of morbidity in clincial practice; though, backache is present in 22% of the present series, in the north of Iraq cases it represents about 85% of the studied 52 patients.We syggest, that,Brucellosis, should be included in the differential

diagnosis of any patient with low backpain and fever and furthermore, Brucellosis has to be included in the differential diagnosis of pyrexia of unknown orign and cases of obsecure splenomegaly and obsecure arthts.[11,12,13].

Tetracycline alone or in combination with streptomicine for a period of (3-4) weeks has been considered approperiate treatment for Brucelloss [14,15].

Table (1) the main geographical distribution and natural hosts of the Brucella species [3]

Organism	Geographical Distrib	Natural Host
B.abortus	World-wide, except northern Europe, Japan, Yugoslavia	Cattle
B. melitensis	Mediterranean region, (esp. Malta) Middle East	Coats and sheep
B. suis	For East, USA	Pigs

Table (II) Age distribution and incidence in our 50 cases of Brucellosis with comparisom with 52 cases from north of Iraq*

age (year)	No. of cases	No.of cases (North)
10-25	27	28
26-44	18	14
45-55	2	6
>55	3	4

*A series of 52 patients with Brucellosis studied in city of Koysanjiq and presented in conference on Brucellosis in 1992 (Depat. of infectios diseases).

Table (III) Clinical manifestation among 50 patients of Brucellosis, in Iraq and Comparism of the featare in two other series including one paediatric

	present series 50 patients %	North series 52 patients %	Al-DUBOONI series 50 patients %
fevre	100	100	100
sweating	82	60	60
lassitude	72	98	0
rigor	68	85	32
anorexia	42	22	44
vomiting	26	0	0
Abdomiral pain	30	0	0
cough	24	25	0
chest pain	4	6	0
Depression	4	6	0
Backache	22	85	0
Arthralagia	22	85	16
Arthritis	6	8	30
Orchitis	2	0	0
Pallor-anaemia	40	42	0
splenomegedy	40	40	60
Hepatomegaly	2	15	48
HSM(Hepato spleno-	0	22	0
megaly)		10	4
Lymphadenopathy	4		
Weight loss	0	15	28
Rash	0	0	0

Table (IV) incidence throughuota 1 year of Brucellosis in 50 patients in Babylon

Month of Diagnosis	No. of patients
January	3
February	7
March	7
April	3
May	9
June	9
July	3
Augest	6
September	1
October	0
November	2
December	0

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