

# AORTITIS IN BEJEL\*

## A PRELIMINARY REPORT

BY

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A review of the literature shows that the occurrence of cardiovascular complications in bejel has received little attention. Hudson (1937) stated that he had never found a clinically substantiated case of aortic valve disease or aneurysm in bejel, and that in Bedouin patients hypertension was virtually unknown, and cardiovascular syphilis practically absent. Macqueen (1934) and Hasselmann (1938) do not deal with the subject. Akrawi (1949) stated that "the matter cannot be considered as settled unless field work among the tribes is done on a large scale".

As bejel is a disease of rural communities, it has not been possible for us to apply modern methods of investigating the cardiovascular system to patients living in primitive conditions in areas distant from medical centres. However, with increasing transport facilities, more bejel patients from rural districts are now seen in the Department of Venereology of the Teaching Hospital at Baghdad, but most of them attend with muco-cutaneous symptoms, and patients with cardiovascular complaints, if they exist, apply to the Medical Department and are diagnosed and treated as suffering from syphilitic cardiovascular complications.

These difficulties have limited our search for cardiovascular complications of bejel to uncomplicated aortitis in those patients attending our Department with late and late latent bejel.

### Methods

Most authors seem to agree on the absence of absolute criteria for the clinical diagnosis of uncomplicated syphilitic aortitis. According to Stokes (1945), however, there are sometimes certain signs and symptoms that should arouse suspicion and suggest further investigation, namely, an accentuation of the aortic second sound, and an alteration of the tonal quality, varying from the hollow tap of an Arab drum to the German clang, with the absence of hypertension in middle

life. As related below, we have encountered only one case in which an accentuation of the aortic second sound was marked, and we have chiefly depended for our diagnosis of uncomplicated aortitis on routine roentgenological examinations, radiography in antero-posterior and oblique positions as well as fluoroscopy. Electrocardiographic examinations were made when coronary involvement was suspected. In every patient special consideration was given to such factors as age, physique, size of the heart, and other features of the thorax.

The general characteristics and size of the ascending aorta, the arch, and the descending aorta were studied under fluoroscopy. Localized bulgings, particularly of the ascending aorta, were taken as pathognomonic of syphilitic aortitis (Stokes and others, 1944). A search was made for linear calcification in the walls of the aorta, considered by Thorner and Carter (1948) as pathognomonic of syphilitic aortitis, but this was not found.

The "swinging-door pulsation phenomenon" was not encountered, but "sluggish pulsations" were noted in one case. In measuring the aortic knob, we followed the method and recommendations of Roesler (1943), and measurements in middle-aged patients above 2.5 cm. (after deducting 0.3 cm. for the aortic and oesophageal walls) were considered as true enlargements.

### Material

Our series consisted of forty cases of late and late latent bejel (17 male and 23 female), aged between 12 and 60 years. All the patients came from the rural districts where bejel is known to exist endemically, and most of them admitted having had bejel in the form of mucous patches or cutaneous eruptions at least 10 years before their present complaint. There were 21 cases with gummatous manifestations of either the skin or the upper respiratory tract; twelve had serpigenous lesions, mainly in the limbs, four had bone and periosteal involvement of a tertiary character, three, although free from clinical manifestations, either complained of osteocopic pains in the bones or showed scars of healed tertiary lesions. Serological findings revealed strong positive reactions in every case having a titre of between 32 and 128 Kahn units.

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Among the forty patients investigated, three presented definite pathological findings of aortic involvement worthy of being recorded as due to bejel. In two others no definite diagnosis was reached as the findings were inconclusive.

#### Case Reports

**Case 1.**—T.I., female, aged 30, from Khalis, married with five children, admitted having had bejel in childhood. She complained of deep-seated pain in the limbs at night-time for the last 2 years, with swelling in both legs. Clinically there were marked swellings of the shaft of both tibiae, more marked on the right side. The patient was thin and anaemic. The heart and chest showed no physical abnormality. X rays of the bones showed periostitis and bony sclerosis. Under fluoroscopy the heart was apparently normal in size while the aorta was markedly enlarged. The aortic knob measured 3.1 cm.

**Case 2.**—T.M., female, aged 40, married, with four children alive, two dead, and two abortions, came from Amarah, an area heavily infected with bejel. She admitted that she and her brothers had had bejel in childhood. She presented a large gumma over the right thigh of 3 months' duration. The patient was thin and very anaemic. The chest and heart showed no abnormality, the pulse was within normal limits, and the blood pressure 130/90. Under fluoroscopy the ascending aorta, the arch, and the descending aorta were markedly enlarged with sluggish pulsations. The aortic knob measured 3.4 cm.

**Case 3.**—A.H., male, aged 36, a farmer from Abu Ghraib, presented with a gumma of the pharynx in April, 1950, for which he had received one course of arsenic and one course of bismuth injections. The patient was well built and in good general health. Clinically an accentuation of the aortic second sound was detected. The pulse was forceful, and the blood pressure 130/85. Under fluoroscopy the ascending aorta was found to be bulging. The aortic knob measured 2.9 cm.

#### Comment

Of forty patients affected with late or late latent bejel, three (7.5 per cent.) were found by careful radiological studies to be affected with uncomplicated aortitis. To be on the conservative side we have purposely omitted the borderline cases. We do not propose, in view of the small number of

cases examined and the preliminary nature of our report, to consider this rate of incidence as final. This study is being continued and a final report will be published when the number of cases investigated amounts to some hundreds.

The aim of this preliminary report is to record that bejel does cause aortic involvement similar to that found in syphilis, a fact denied or not studied by other observers. The rate of incidence in this small series seems to be appreciably lower than that which would be expected in untreated syphilis, but opinion on this point should be reserved until our studies are completed.

#### Summary

(1) Using modern radiological methods of investigation, three cases (7.5 per cent.) of uncomplicated aortitis were found in a series of forty cases of late and late latent bejel, in the second decade of infection onwards.

(2) A larger series of similar cases will be investigated by the same technique and will be reported in due course.

(3) In this way an accurate estimate of the incidence of uncomplicated aortitis in bejel may be determined, and other forms of cardiovascular involvement, if such occur, may be recorded.

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