

colonial Vorticellids under natural conditions. At the same time, these protozoa have been found to develop remarkably and function in the aeration tanks of the activated sludge plant and in other aerobic systems (Pillai, 1941, '42, '49 '51 & '52; Pillai and Subrahmanyan, 1942, '44, '45, & '46).

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SERUM CALCIUM AND PHOSPHORUS, 24 HOURS AFTER MASSIVE CALCI- FEROL THERAPY

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The present work was conducted to find out the changes in serum calcium and inorganic serum phosphorus 24 hours after a massive dosage of parenteral calciferol.

The patients (total number being ten) were chosen at random from the wards. Blood was collected for calcium and phosphorus estimations, and subsequently 1 cc. Ostelin Forte (Glaxo) containing 600,000 units Vitamin D (15 mg. calciferol B.P.) was injected intramuscularly. 24 hours after the injection, blood was collected again for the same estimations.

Results are given in the accompanying table.

No.	Name	Age, Nationality and sex	SERUM CALCIUM IN MG.%		INORGANIC SERUM PHOSPHORUS IN MG.%	
			Before calciferol	After calciferol	After calciferol	Before calciferol
1	L. R.	.. 35, H., M.	10.0	8.1	5.0	4.0
2	B. P.	.. 18, H., M.	8.1	6.6	7.0	5.0
3	S. D.	.. 16, H., M.	11.0	10.9	0.8	1.6
4	S. R.	.. 40, H., M.	9.2	6.9	6.1	4.0
5	S. P. S.	.. 28, H., M.	8.4	7.1	4.8	3.9
6	B. S.	.. 34, H., M.	7.9	8.1	3.8	3.7
7	G. S.	.. 21, H., M.	10.7	10.4	3.4	3.2
8	L. K.	.. 19, H., M.	8.6	7.3	5.2	4.4
9	M.	.. 25, H., M.	9.0	9.0	4.2	4.4
10	S. S.	.. 30, H., M.	10.1	9.3	3.9	3.3

Age in years.

H. M.—Hindu male.

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Summary and conclusions

In 6 cases (Nos. 1, 2, 4, 5, 8, & 10) there was a significant lowering of serum calcium, in 3 cases (Nos. 3, 7 & 9) the lowering was insignificant, and in only one case (No. 6) there was a very slight rise 24 hours after the injection of massive calciferol. Hence, the main conclusion was that 24 hours after a massive dosage of parenteral calciferol, there was lowering of the serum calcium.

In 6 cases (Nos. 1, 2, 4, 5, 8 & 10) there was a significant rise of the inorganic serum phosphorus. These cases were the same who had a significant lowering in their serum calcium. It is difficult to postulate whether the fall in

serum calcium or the rise in serum phosphorus was the primary effect of massive calciferol therapy. Except in case No. 3 in which there was a marked fall in serum phosphorus, in other cases (Nos. 6, 7 & 9) there was no significant change.

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NUTRITIONAL PERIPHERAL NEUROPATHY RELATED TO "THE SHOULDER GIRDLE SYNDROME"* IN PERSIA AND IRAQ FORCE 1944-45.

PART I

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This study comprises eighty-two cases of peripheral neuropathy seen during eleven months in South Iraq in 1944-45. Many cases closely resembled what has been variously called 'Brachial neuritis occurring in epidemic form' (Mason, 1942), 'Multiple neuritis of shoulder girdle' (Burnard and Fox, 1942), 'Serratus magnus palsy' (Richardson, 1942), 'Infective Neuritis' (G.H.Q. M.E.F., 1943), 'Localised Neuritis of the shoulder girdle' (Spillane, 1943), 'Acute Brachial Radiculitis' (Turner, 1944; Dixon and Dick, 1945), 'Unusual type of peripheral neuropathy' (Weinstein and Gersten, 1944), 'Localised nontraumatic neuropathy in Military personnel' (Weinstein, 1947), 'Neuralgic amyotrophy' (Parsonage and Turner, 1948), 'Akut skulderneurit' (Hook, 1949) and 'Paralysie amyotrophique des muscles periscapulaires' (Alajouanine *et al.*, 1950). Our series was tentatively regarded to have a nutritional basis and showed a significant therapeutic response to thiamin.

The observations recorded were made on troops living in the extreme desert climate of Shaiba in South Iraq: 64 were direct local admissions from the garrison population of about 18,000 Indian troops. The majority of the men had been at Shaiba and overseas for over two

years. The local garrison was practically a static one and hospital ship evacuation to India was very scarce for several months: an ideal situation for study of any disease in the Armed forces was thus accidentally provided.

An exhaustive proforma including a muscle chart was filled up for each case after the first examination: weekly examinations were conducted thereafter to record the progress. Constant reference to the M.R.C. pamphlet 'AIDS TO THE INVESTIGATION OF PERIPHERAL NERVE INJURIES' was of value.

AGE.

Nine were above forty years of age the remaining being between 20-40.

PROVINCE AND RACE.

Seventy-seven were Indians and the majority were from north (table I).

TABLE I

Province & Race.

	Punjab	N.-W. F. P.	U.P.	C.P.	Bengal	South	Bombay	Anglo-Indian	Iraqi	British
Number of cases.	33	5	19	1	4	13	2	1	2	2

OCCUPATION.

Each individual was closely questioned about his exact occupation (table II). When relevant he was put to his accustomed work as an exercise and a study made of the groups of muscles called into play. Relation of occupation to the site of disease is discussed later under clinical features.

TABLE II

Occupation.

Officers (and V.C.O.)	..	..	6
N.C.O.	..	..	5
Sepoys	..	..	14
Artisans	..	..	8
Drivers and mechanics	..	..	8
Hospital staff	..	..	4
Clerks	..	..	3
Pioneers	..	..	22
Mess waiters and sweepers	..	..	12

* Summary read at the Annual Conference of Association of Physicians of India at Lucknow in March 1950.