

CLINICAL STUDY
DONOVANOSIS AT KAKINADA
(A clinical study)

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We are presenting our observations on Donovanosis at the Department of Social Hygiene, Rangaraya Medical College and Government General Hospital, Kakinada, in Andhra Pradesh, during the last 3 years. Because of the scarcity of articles on this subject in the recent dermatological literature, except those enlightening ones by Prof. Rangiah et al from the Institute of Venereology, Madras, we thought it worthwhile to present our observations on this neglected venereal disease. Rajam and Rangiah in their W. H. O. monograph series on Donovanosis have stated that the disease is endemic in the states of Madras and Orissa with the greatest incidence in the districts along the eastern seaboard of the peninsula. They have further stated that information on the prevalence of the disease in other states of this vast sub-continent is sadly lacking. With the reorganisation of the States in India, the Madras State does not mean the old Madras State and the young venereologist of to-day may fail to appreciate the prevalence of the disease in different states of South India as they exist to-day.

Kakinada is a small sea port on the east coast of India 629 Kilometers north of Madras and 151 Kilometers south of Visakhapatnam with a population of about 1,22,000. It has a warm and humid climate during the major part of the year. All our patients are with fair to dark colour skin and come from the low socio-economic strata who are completely ignorant of the personal, social and sexual hygiene.

Donovanosis is a common venereal disease in Kakinada area. An analysis of other records of the past 3 years at the Social and Moral Hygiene Clinic, has shown that 360 males and 150 females were diagnosed as suffering from Donovanosis, thus giving the male to female ratio of 2.4 : 1 in the hospital attendance. Profs. Rajam & Rangiah also reported a similar ratio. This, however, does not give the true sex ratio of the disease in the general population because as is the case with other venereal diseases, many women hide the disease and do not report themselves at the clinic. Moreover notification of venereal disease by private practitioners is not the practice in this part

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of our country. Only a field study in the area will give the true incidence of the disease.

TABLE 1.
SHOWING THE SEX-WISE DISTRIBUTION OF V.D. (3 years).

Sex	SY.	GON.	S S	L.G.V.	Dono- vanosis	Total V.D.	% of incidence of Donovanosis
Male	3756	525	762	433	360	5836	6.1
Female	1702	132	77	95	150	2157	6.9
Total	5458	657	839	529	510	7993	6.3

Table No. 1 shows that Donovanosis accounted for 6.1% of the total Male V. D. cases and 6.9% of total Female V. D. cases. It formed 6.3% of the total V. D. cases and this is much greater than the incidence of 1.5% reported by Rajam & Rangiah at Madras. We believe that this relative increase in the % incidence of Donovanosis is due to the fact that a considerable number of patients with syphilis and Gonorrhoea are now treated by the quacks and non-specialists and do not report at the V. D. Clinic. Fortunately or unfortunately the quacks and many non-specialists do not yet know the specific drug for the treatment of Donovanosis. Table No. 1 also reveals that the incidence of Donovanosis in the Female sex is second only to syphilis.

TABLE 2.
SHOWING THE DISTRIBUTION OF DONOVANOSIS ACCORDING TO AGE & SEX
(430 cases)

Sex	Under 12	13-20	21-30	31-40	41-50	51-60	Over 61	Total	Youngest.	Oldest
Male	Nil	50	172	57	20	2	1	302	16	70
Female	Nil	54	46	20	6	1	1	121	14	65
Total	Nil	104	218	77	26	3	2			
Percentage	Nil	24	68.6		7.5					
Rajam & Rangiah		16	17		12					

Table No. 2 shows that in the males the age incidence is greatest in the 3rd decade of life followed by the 4th and 2nd decades. But in the females the greatest incidence is in the teenage group, the next in order of incidence being the 3rd and 4th decades of life. Rajam et al have reported an incidence of 70% in the age group of 20-40 years and it is gratifying to note that in our series, we have a similar incidence of 68.6% in that age group. But, in our series the patients in the teenage group comprise 24% of the total cases, while the corresponding figure in Rajam's series was only 16%. It also reveals that teenage Donovanosis is higher in the female sex accounting for 42% of the female cases while it formed only 16.5% of the male cases. This may be due to the earlier onset of maturity, in the Indian girls. The incidence of Donovanosis in

persons over 40 years of age is 7.5% in our series, compared to 12% in Rajam & Rangiah's series.

Marital Status: In the present series 176 males (58%) and 90 females (70%) were married. This shows that while the incidence of Donovanosis is almost equal in both the married and single males, it is more common among the married women than the unmarried.

Sexual Exposure: 280 among 302 males (92%) have given history of pre-marital or extra marital sexual intercourse, many of them having had the risk at the brothel houses a few days or weeks preceding the onset of the ulcer.

Incubation Period (Or Latent Period): Some of the patients gave history of repeated exposures. The incubation period as elicited from the date of the last exposure varied from a few days to several months. The shortest was 3 days and the longest was 6 months. However, in the majority of cases it varied from 1 to 6 weeks. (Rangiah in a personal communication has stated that it is difficult to accept the I.P. to be so short as 3 days).

Past History of V. D: A considerable number of male cases with Donovanosis had one or the other venereal disease in the past and received insufficient treatment. We do not know how far this is a contributory or predisposing factor.

The commonest lesion noticed by us was a soft, easily bleeding granular ulcer covered with serosanguinous or dirty yellow sero-purulent discharge. Many patients complained of some degree of pain. The inguinal lymph nodes on one or both sides were palpably enlarged in many cases, but were not particularly tender. This was not surprising because of the associated secondary infection seen even at their first visit. Moreover, in a considerable number of cases the serological test for syphilis was positive with a past history of sore penis (early latent syphilis). Itching at the site of the lesions was complained of only by the female patients.

TABLE 3 SHOWING THE DURATION OF THE DISEASE AT THE FIRST VISIT.

Duration	Male	Female
Within 1 week	37	11
1 to 4 weeks	101 63%	28 42%
1 to 2 months	52	15
2 to 6 months	78 26%	46 36%
$\frac{1}{2}$ to 1 year	24	17
1 to 2 years	6	6
Over 2 years	4	5

Table No. 3 reveals that a greater number of male patients attended the Clinic at an earlier stage of the disease than the females. In only 11% of male cases, the dura-

tion of the disease was more than 6 months while it was same 22% of females. The longest duration was 6 years in a male and 4 years in a female patient.

TABLE 4 SHOWING THE DISTRIBUTION OF ULCER ACCORDING TO SITE & SEX

No.	Site of the ulcer	No. of males	No of females	Total	Percentage	
					Male	Female
1.	Ext. Genitalia only	265	100	365	88	78
	Prepuce & Frenum	192	In order of fre-			
	Glans and carona	64	quency, Labia-			
	Prepuce & glans	29	Minora, Fourchette			
	Shaft penis only	23	Labia majora			
	Prepuce, glans & Shaft	20	Clitoris, Vagina			
	Peno-scrotal junction	7				
2.	Genito inguinal	23	5	28	7.6	4
3.	Genito Inguinoanal	1	1	2		
4.	Genito perineoanal	1	20	21		
5.	Inguinal only	10	—	10	0.3	16
6.	Perianal and anal only	2	2	4		
Total		302	128			

Table No. 4 shows that in 88% of males and 78% of females, the lesions were limited to the external genitalia only. This is much higher when compared with the experience of other workers (See table below).

Name & year	Percentage	No. of cases
1. Nair and Pandalai	53	39 out of 73
2. D'Aunoy & Von Haam (1937)	43	128 out of 294
3. Rajam & Rangiah (1954)	56	478 out of 858
4. Ramarao & Patnaik (1965)	85	365 out of 430

The higher percentage of the solely genital lesions in our series indicates that a greater number of patients attended the Clinic at an earlier stage of the disease than in the previous series. This shows the changing pattern of the disease because of an early diagnosis and the availability of treatment facilities with modern antibiotics to more and more number of V. D. patients. The above table also confirms that genito-inguinal spread is more common in men and that genito-perineo-anal extension is more common in women. Even in the female cases with genito-perineo-anal involvement, on detailed enquiry or after looking into their past records it was found that the primary site of the ulcer was the external genitalia with subsequent extension to the anal and peri-anal regions. It is also our observation that the apposing surfaces of the labia minora in the females and the apposing surfaces of the glans and prepuce in males are involved in a considerable number of cases. Only in 2 males (both admitted passive

pedarasty) and 2 females was the ulcer limited to perianal and anal regions. Only inguinal location of the ulcer was seen in 10 males accounting for only 3% of the cases. This shows that there is little justification for the continual use of the confusing term "Granuloma Inguinale". We have not come across any case with purely extra genital lesion.

Partner Infections: Infection of the coital partner in Donovanosis is generally thought to be rare and is often argued as an important point against the venereal transmission of the disease. During the past 3 years 16 cases of partner infections were recorded among 82 partners in our Clinic. (19.5%) which is again much higher than the previous reports. (See table below).

<i>Name and Year</i>			<i>Name and Year</i>		
Allison (1946)	1 in 2000	(0.5%)	(In India)
Packer & Goldberg (1950)	2 in 5000	(0.4%)	Rajam & Rangiah.	30 in 250	(12%)
			(1954)		
Greenblatt (1958)	6 in 300	(2%)	Serma (1957)	19 in 157	(12%)
Sutherland (1963)	6 in 100	(0.6%)	@ Ramarao &		
			Patnaik (1965)	16 in 82	(19.5%)

Course and complications: The ulcer appears to spread less slowly in patients with severe malnutrition and also in females during pregnancy. Anaemia and hypoproteinaemia were observed more frequently in female patients but these were the patients who attended with long standing Donovanosis. Pseudo elephantiasis of the external genitalia was seen in 20 males (6%), and in 38 females (30%). Phagedena occurred in 9 males (3%) and 6 females (5%). Only in 1 male and 2 females, epidermoid carcinom developed as a complication of a pre-existing longstanding Donovanosis. It may be pointed out here, we have come across Donovanosis of external genitalia in 2 patients with Lepromatous Leprosy and in 2 patients with Scrofuloderma.

Treatment: 174 patients (early and late cases) were treated with 1 Gm. of Streptomycin I. M. daily for 20 days. Supportive therapy with Vitamins and Proteins was given when indicated. Healing was slower in patients with long standing Donovanosis and in patients with severe anaemia and hypoproteinaemia. 144 patients responded to this line of treatment with healing of the ulcer, (showing a treatment "failure" rate of 17%). The remaining 30 cases, who showed only little or no response to 20 Gms. of Streptomycin, were given a daily dose of 600 Mgs. of Ledermycin brand of Demethylchlor Tetracycline (150 mgm. 6th hourly), for 20 days. along with Vitamin B. Complex orally. All these 30 cases responded with healing of the ulcer. In another 15 cases of extensive Donovanosis of long duration (1 year or more), Ledermycin was administered, as the first drug of choice and in all but 3 cases, the ulcer healed up. (Over all treatment "failure" with Ledermycin being 7%). However, when these 3 cases were put on Streptomycin, the ulcer healed up. No severe untoward reactions were observed either with Streptomycin or Ledermycin.

(Rangiah has stated "the difficulty lies in conceding the high therapeutic failure with Streptomycin. It is the practice here (Madras) to give Streptomycin Sulphate 1 Gm. I.M. twice a day for 10 days. We have not come across any case of therapeutic failure with Tetracyclines.") (Personal communication).

On the basis of this, and our own experience, we may conclude that a total dose of 20 Gms. of Streptomycin or Tetracyclines (or 600 mg. of Ledermycin) given in a period of 10 days is more effective than the same dose given over a period of 20 days.

Our emphasis on the venereal nature of the disease should not in any way minimize the efforts to investigate non-venereal aspects of the disease. On the other hand, we are afraid, that any undue stress on the non-venereal nature of the disease before it is finally proved, may only result in slackening our efforts to eradicate the disease in the reservoirs of infection.

We wish to suggest (1) that there is an urgent need for the study of the microbiological aspects of the disease; a study of the microbiology of the female genital tract in normal females and in apparently normal female contacts of male patients, to find the incidence of the enteric bacteria in vaginal discharges.

(2) To study the incidence of Homosexual and Heterosexual rectal coitus with particular reference to Donovanosis

(3) To report the incidence of Donovanosis limited only to perianal and anal regions, and to elicit the history of passive pederasty in all such cases.

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