

CIBA 32644-Ba and spermatogenesis in man : preliminary results

Autor(en): **Da Silva, J. Rodrigues**

Objektyp: **Article**

Zeitschrift: **Acta Tropica**

Band (Jahr): **23 (1966)**

Heft (9): **Thérapeutique nouvelle de la Bilharziose et de l'amibiase :
Symposium de Lisbonne 2 au 4 Juin 1965**

PDF erstellt am: **22.07.2024**

Persistenter Link: <https://doi.org/10.5169/seals-311387>

Nutzungsbedingungen

Die ETH-Bibliothek ist Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Inhalten der Zeitschriften. Die Rechte liegen in der Regel bei den Herausgebern.

Die auf der Plattform e-periodica veröffentlichten Dokumente stehen für nicht-kommerzielle Zwecke in Lehre und Forschung sowie für die private Nutzung frei zur Verfügung. Einzelne Dateien oder Ausdrucke aus diesem Angebot können zusammen mit diesen Nutzungsbedingungen und den korrekten Herkunftsbezeichnungen weitergegeben werden.

Das Veröffentlichen von Bildern in Print- und Online-Publikationen ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. Die systematische Speicherung von Teilen des elektronischen Angebots auf anderen Servern bedarf ebenfalls des schriftlichen Einverständnisses der Rechteinhaber.

Haftungsausschluss

Alle Angaben erfolgen ohne Gewähr für Vollständigkeit oder Richtigkeit. Es wird keine Haftung übernommen für Schäden durch die Verwendung von Informationen aus diesem Online-Angebot oder durch das Fehlen von Informationen. Dies gilt auch für Inhalte Dritter, die über dieses Angebot zugänglich sind.

CIBA 32644-Ba and Spermatogenesis in Man

Preliminary results

J. RODRIGUES DA SILVA *

1. Introduction

LAMBERT, SINARI and TRIPOD (1965) have demonstrated that the schistosomicide CIBA 32644-Ba may exert a transitory effect on spermatogenesis in the rat, dog, and monkey. It was therefore considered essential to attempt to determine whether any such effect was observable in man.

2. Material and Methods

11 males of ages ranging from 19 to 40 years were selected at random from among the patients receiving CIBA 32644-Ba for the treatment of *Schistosoma mansoni* infections. Samples of semen were collected and examined according to the techniques described by WELLS (1956) before and at various intervals after treatment. The dosage schedules employed are summarised in Table 1. The normal range for the total spermatozoa count according to WELLS is 200-400 million or 80-150 million per ml of semen. The morphology is considered normal when less than 25% of abnormal spermatozoa are observed in stained preparations. At least 80-90% of spermatozoa should be active at the first examination.

3. Results

Examination of the semen of the 11 subjects on a total of 24 occasions yielded the following data, which are summarised in Table 1.

* Clinica de Doenças Tropicais e Infectuosas, Faculdade Nacional de Medicina, Universidade do Brasil, Rio de Janeiro.

The author expresses his thanks to Dr. Neida Costa, who was in charge of these investigations.

TABLE 1
Summary of seminal examinations made before and after treatment with CIBA 32644-Ba

Case No.	Age (years)	Treatment		Days between start of therapy and examination	Seminal examination				
		Dosage (mg/kg)	Duration (days)		Morphology	Motility after:		Volume (ml.)	Sperm count ($\times 10^6$ /ml.)
						1 hr.	3 hrs.		
23	25	33.5	5	11	Normal	++	+	3	75
27	36	45	5	12	Normal	++	+	5	70
		36	8	5	Normal	++	+	?	200
		45	2	11	Normal	++	+	?	90
		36.5	5	B.T.	Normal	++	+	?	150
29	19	45.5	5	11	Normal	++	+	?	210
30	22	40	6	B.T.	Normal	++	+	?	90
		50	4	11	Normal	++	+	?	250
		30	10	B.T.	Normal	++	+	?	100
				11	Normal	++	+	?	45
31	36	38.5	10	41	Normal	++	+	?	82
				72	Normal	++	+	3.6	120
				B.T.	Normal	++	+	?	60
				14	Normal	++	+	?	100
32	36	27.5	7	B.T.	Normal	++	+	?	200
36	35	30	7	8	Normal	++	+	?	100
				B.T.	Normal	++	+	3	130
				11	Normal ¹	++	+	3	145
				B.T.	Normal	+	+	2.5	20
43	39	26	7	10	Normal ¹	+	—	1.5	1.5
44	40	29	7	B.T.	Normal	++	+	3.5	160
				11	Normal ¹	++	+	3	130
48	40	29	7	B.T.	Normal	++	+	1	230
				9	Normal ¹	++	+	2.5	180

B.T. = before start of treatment.

¹ = specimens examined by May-Grunwald-Giemsa, Giemsa and PAS techniques.

In all the specimens spermatozoan morphology was considered to lie within the normal range. No significant differences in motility were observed in any case between specimens collected before or at various intervals after treatment. The sperm count in specimens collected before treatment was within the normal range except in Case 43 and possibly Case 31. In Case 43 a significantly low total count of 50 million was found. Following treatment no significant changes in the count were observed in 8 of the 11 patients. Cases 27 and 30 presented a decreased count per ml of semen 1 day after the end of treatment. Case 30 was examined again 1 and 2 months later. After 1 month the count/ml had increased to within the normal range and after 2 months was still higher. Case 43 showed a lower count 3 days after the end of treatment than before but both counts were grossly reduced.

4. Discussions and Conclusions

Our study has shown that a slight reduction in the sperm count may have occurred in 3 of the 11 patients treated with CIBA 32644-Ba. Of these 3 cases, one patient showed an abnormally low count before starting therapy and the picture after treatment cannot be considered significant. In one of the remaining two cases no record was obtained of the *total* count. The count per ml, while apparently reduced 1 day after the end of treatment with what we now consider to be an unnecessarily high dosage, still remained within the range regarded as normal. In the last case an apparent depression 1 day after the end of treatment (again no *total* count is available) reverted to normal within the next month.

In this series which includes patients treated with roughly double what is now considered the probable optimal dosage, it can be concluded that CIBA 32644-Ba produced no significant inhibitory effects on spermatogenesis as far as can be observed by the examination of semen by accepted standard techniques.

Summary

A group of 11 patients, between the ages of 19 and 40 years, with *schistosomiasis mansoni* was treated with CIBA 32644-Ba in doses of 26-50 mg/kg daily for 4-10 days. The author concludes that treatment had no significant effect on spermatogenesis. Sperm was examined before and at different intervals throughout the treatment by the standard methods described by WELLS.

Résumé

Dans une série de 11 malades, âgés de 19 à 40 ans et traités, pour une bilharziose à *S. mansoni*, par des doses de 26 à 50 mg/kg/jour de CIBA 32644-Ba pendant 4 à 10 jours, l'auteur conclut que le traitement n'influence pas la spermatogénèse de façon significative. L'examen du sperme a été pratiqué avant et à différents intervalles après le traitement, selon les techniques standard décrites par WELLS.

References

- LAMBERT, C. R.; SINARI, V. S. P. & TRIPOD, J. (1965). Effect of CIBA 32644-Ba on spermatogenesis in laboratory animals. — *Acta Tropica* 22, No. 2, 155.
WELLS, B. B. (1956). *Clinical pathology, application and interpretation*, 2nd ed., p. 426. — Philadelphia: W. B. Saunders Co.