

<b>Zeitschrift:</b>	Acta Tropica
<b>Herausgeber:</b>	Schweizerisches Tropeninstitut (Basel)
<b>Band:</b>	23 (1966)
<b>Heft:</b>	(9): Thérapeutique nouvelle de la Bilharziose et de l'amibiase : Symposium de Lisbonne 2 au 4 Juin 1965
<b>Artikel:</b>	CIBA 32644-Ba and spermatogenesis in man : preliminary results
<b>Autor:</b>	Da Silva, J. Rodrigues
<b>DOI:</b>	<a href="https://doi.org/10.5169/seals-311387">https://doi.org/10.5169/seals-311387</a>

### Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

### Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

### Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

**Download PDF:** 20.08.2025

**ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>**

# 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.

\* Clínica 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	Morphology	Motility after:		Seminal examination	
		Dosage (mg/kg)	Duration (days)			1 hr.	3 hrs.	Volume (ml.)	Sperm count ( $\times 10^6/\text{ml.}$ )
23	25	33.5	5	11	Normal	+++	++	3	75
		45	5	12	Normal	+++	++	5	70
27	36	36	8	5	Normal	+++	++	?	200
		45	2	11	Normal	+++	++	?	90
28	36	36.5	5	B.T. 11	Normal	+++	++	?	150
		45.5	5		Normal	+++	++	?	210
29	19	40	6	B.T. 11	Normal	+++	++	?	90
		50	4		Normal	+++	++	?	250
30	22	30	10	B.T. 11	Normal	+++	++	?	100
					Normal	+++	++	?	45
					Normal	+++	++	?	82
					Normal	+++	++	?	120
31	36	38.5	10	B.T. 14	Normal	+++	++	3.6	60
		27.5	7	B.T. 8	Normal	+++	++	?	100
32	36	27.5	7	B.T. 11	Normal	+++	++	?	200
		30	7	B.T. 10	Normal <sup>1</sup>	+++	++	?	100
36	35	26	7	B.T. 11	Normal <sup>1</sup>	+++	++	3	130
		29	7	B.T. 11	Normal <sup>1</sup>	+++	++	3	145
43	39	29	7	B.T. 9	Normal <sup>1</sup>	+++	++	2.5	20
		29	7	B.T. 9	Normal <sup>1</sup>	+++	++	1.5	1.5
44	40	29	7	B.T. 9	Normal <sup>1</sup>	+++	++	3.5	160
		29	7	B.T. 9	Normal <sup>1</sup>	+++	++	3	130
48	40	29	7	B.T. 9	Normal <sup>1</sup>	+++	++	1	230
						+++	++	2.5	180

B.T. = before start of treatment.

<sup>1</sup> = 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.