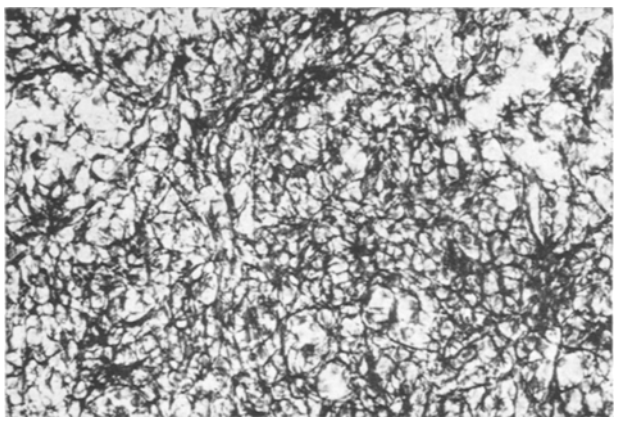
Reticular Fibres in Yoshida's Sarcoma

The histogenesis and classification of the tumour experimentally established by YOSHIDA, and called 'Yoshida's sarcoma', remains undecided[1,2]. One of the possible reasons for this is the fact that he was unable to demonstrate the presence of reticuline by the method of Wilder.

We found no reference in the literature which might throw any light on the behaviour of this tumour as regards the production of reticuline. For this reason we decided to study the subject, using several other methods.

Portions of different areas of tumours implanted subcutaneously in the cervico-dorsal region of Wistar female rats were used. The animals were killed after 20 days. Macroscopically observable necrotic material was discarded. The samples were fixed in 10% formalin. Besides the usual staining methods, we used Rio Hortega's and Wilder's methods for reticular fibres, PAS and examination with polarized light.



Rio Hortega's method showing reticular fibres in the Yoshida sarcoma.

The general morphology was identical with that described by YOSHIDA[1,2]. The sections stained by the method of Rio Hortega, however, revealed in several areas an abundance of reticular fibres. The PAS was also positive in several areas and examination with polarized light revealed the birefringence which is characteristic of fibrillar material[3]. These results seem to indicate the presence of reticuline in the material examined.

Two explanations may be offered to explain our results. Either the tumour suffered an alteration of its behaviour in our laboratory, or Wilder's method is not sufficiently sensitive for the detection of reticuline in this material.

Zusammenfassung. Das Yoshida-Sarkom wurde mit Hilfe von PAS, polarisiertem Licht und den Methoden von Wilder und Rio Hortega zur Darstellung retikulärer Fasern untersucht. Letztere Methode führte zum Nachweis grösserer Fasernmengen im Neoplasiegewebe.

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Effect of Starvation on the Concentration of Ascorbic Acid in the Pedipalp Muscle of the Scorpion *Palamnaeus bengalensis*

There are only a few reports on the nutritional and metabolic status of ascorbic acid for invertebrates. BRIGGS[1] and ROUSELL[2] reported that *Periplaneta americana* can synthesize ascorbic acid from hexoses. BRIGGS[1] showed that the *Musca* homogenates can synthesize ascorbic acid from a variety of hexoses including glucose. These observations indicated that invertebrate tissues can synthesize ascorbic acid. However, the factors influencing the synthesis in invertebrates have not been studied. In mammalian liver, the synthesis of ascorbic acid declines on starvation (STRIPE, COMPORTI, and DELLACORTE[3]). In the present investigation, the author has studied the effect of starvation on the concentration of ascorbic acid in the muscle of *Palamnaeus bengalensis*.

The scorpions were collected and fed on live cockroaches for one day. One lot was then used as normals and the other lot was allowed to starve for 12 days. The pedipalp muscles were dissected from the normal and starved scorpions and the concentration of ascorbic acid was determined according to the 2,4-dinitrophenyl-hydrazine method of ROE[4]. The intensity of colour developed was measured in a Lumetron colorimeter, using a 515 mμ filter. The concentrations of the unknown samples were determined from a standard linear curve. The results were expressed as mg ascorbic acid/100 g wet weight of muscle.

Concentration of ascorbic acid in the pedipalp muscle of normal and starved scorpions

Animal	mg ascorbic acid/100 g wet weight	S.D.	P. '*t*' test
Normal	10.01 (3)	± 1.41	0.001
Starved	2.50	± 0.86	

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