Table 1 *Comparative account of Pseudocercospora sp.*

Host	Conidiophore	Conidia	Reference No.
i. *Gomphrena globosa*	2–10 septate 34–127 × 5–6.8 mμ	3–13 septate 58.5–173.5 × 11.9–15.3 mμ	3
ii. *Datura fastuosa*	3–11 septate 51–221 × 4.1–5.1 mμ	6–12 septate 81–193 × 10.2–11.9 mμ	
Meliaceae	8 mμ	3–5 septate 30–56 × 3–4 mμ	4
Zephyranthes rosea[6]	0–2 septate 9–36 × 1.5–24 mμ	2–5 septate (9–)–12–39 × (1.5–)2–3.5 mμ	5
Stereospermum suaveolens	1–3 septate 16–60 × 3–6 mμ	10 septate 50–110 × 2–5 mμ	7
Azadirachta indica	1–3 septate 13.8–46 × 3.4–5.7 mμ	9 septate 13.8–98.9 × 3.45–4.60 mμ	6

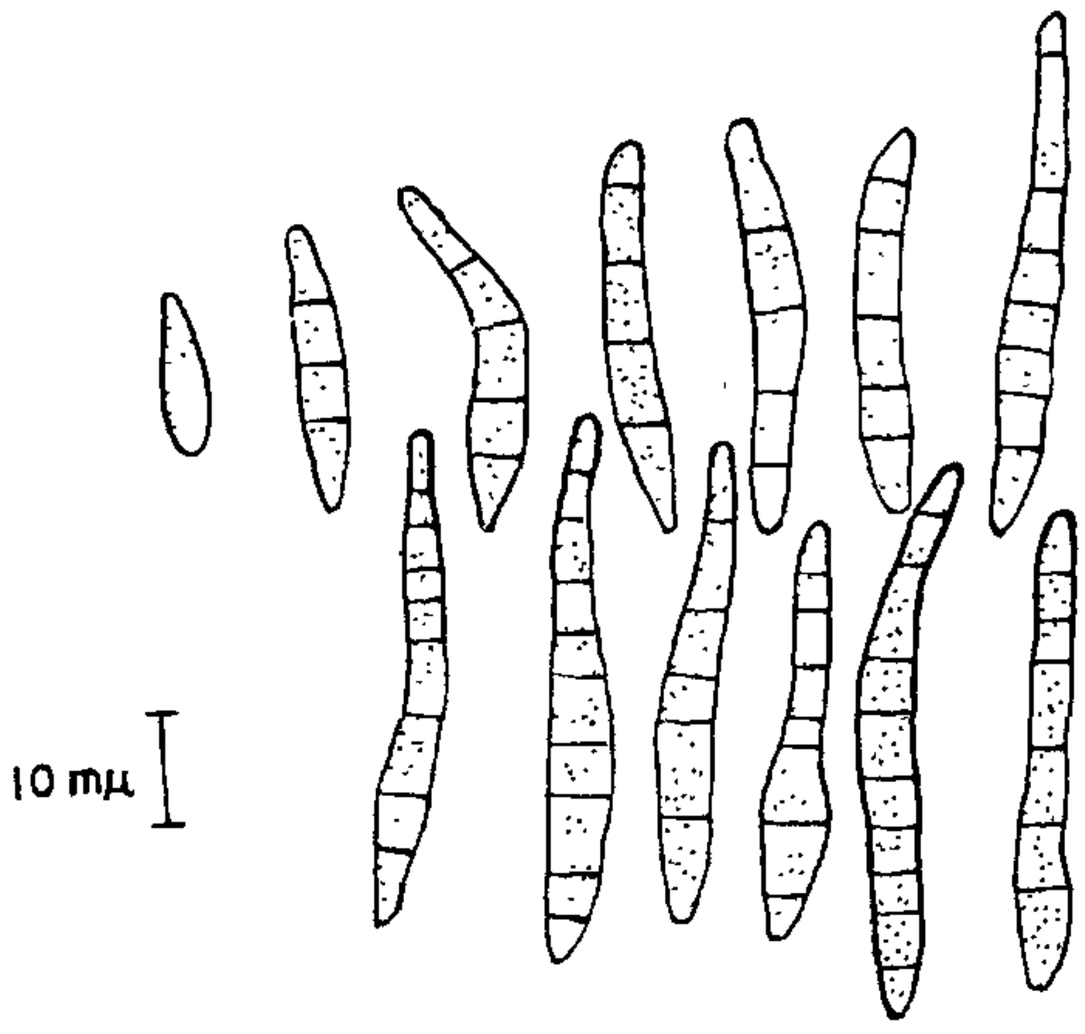

Figure 2. Conidia of *P. tetramelis*

obclavata, interdum truncata in basi, pallida vel aliquatenus brunnea, laevia, 0–9 tranverse septata, 33.11–56.73 × 9–9.46 mμ. In foliis Tetramelis nudiflorae R. Br. lectis in Burnihat, in fine Assam-Meghalaya.

Specimen positumin C.M.I., Kew numerus Herb I.M.I. 238129, holotypus.

The specimen was also deposited at the Pathological herbarium of S. F. S. College-cum-Research Centre, Burnihat under Herb. no. 14.

A comparison of all the species of *Pseudocercospora* described so far[2–7] revealed the distinct identity of this species as regards to the shape and size of conidia and conidiophore (table 1). It is also noted that no species of *Pseudocercospora* has ever been reported on *T. nudiflora.*

Thanks are due to the Principal and Head of Research for providing laboratory facilities, to Dr B. C. Sutton of C.M.I., Kew for commenting upon the specimen and to Father V. Dierckx for the Latin diagnosis.

13 June 1983; Revised 16 September 1983

1. Bilgrami, K. S., Jamaluddin and Rizwi, M. A., *Fungi of India*, Pt I, Today and Tomorrow Printers and Publishers, New Delhi, 1979, p. 467.
2. Bilgrami, K. S., Jamaluddin and Rizwi, M. A., *Fungi of India*, Pt II, Today and Tomorrow Printers and Publishers, New Delhi, 1981, p. 128.
3. Chiddarwar, P.P., *Sci. Cult.*, 1957, **22**, 511.
4. Deighton, F. C., *Mycol papers*, CMI, 140, 154.
5. Durga Gupta, Padhi, B. and Chowdhory, P. N., *Sci. Cult.*, 1982, **48**, 112.
6. Rai, A. N. and Kamal, *Curr. Sci.*, 1982, **51**, 287.
7. Srikantha, A. and Sivanesan, A., *Trans. Br. Mycol. Soc.*, 1980, **74**, 431.

CYLINDROCARPON UNISEPTATUM SP. NOV.—A NEW FUNGUS FROM INDIA

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DURING the survey of hyphomycetes inhabiting nematodes, an interesting species of genus *Cylindro-*

carpon Wollen., was isolated from the unhatched eggs of *Heterodera avenae*, which later proved to be a new taxon. The holotype and isotype is accessioned in *Herbarium cryptogame Indiae orientalis*, and Indian type culture collection, IARI, New Delhi.

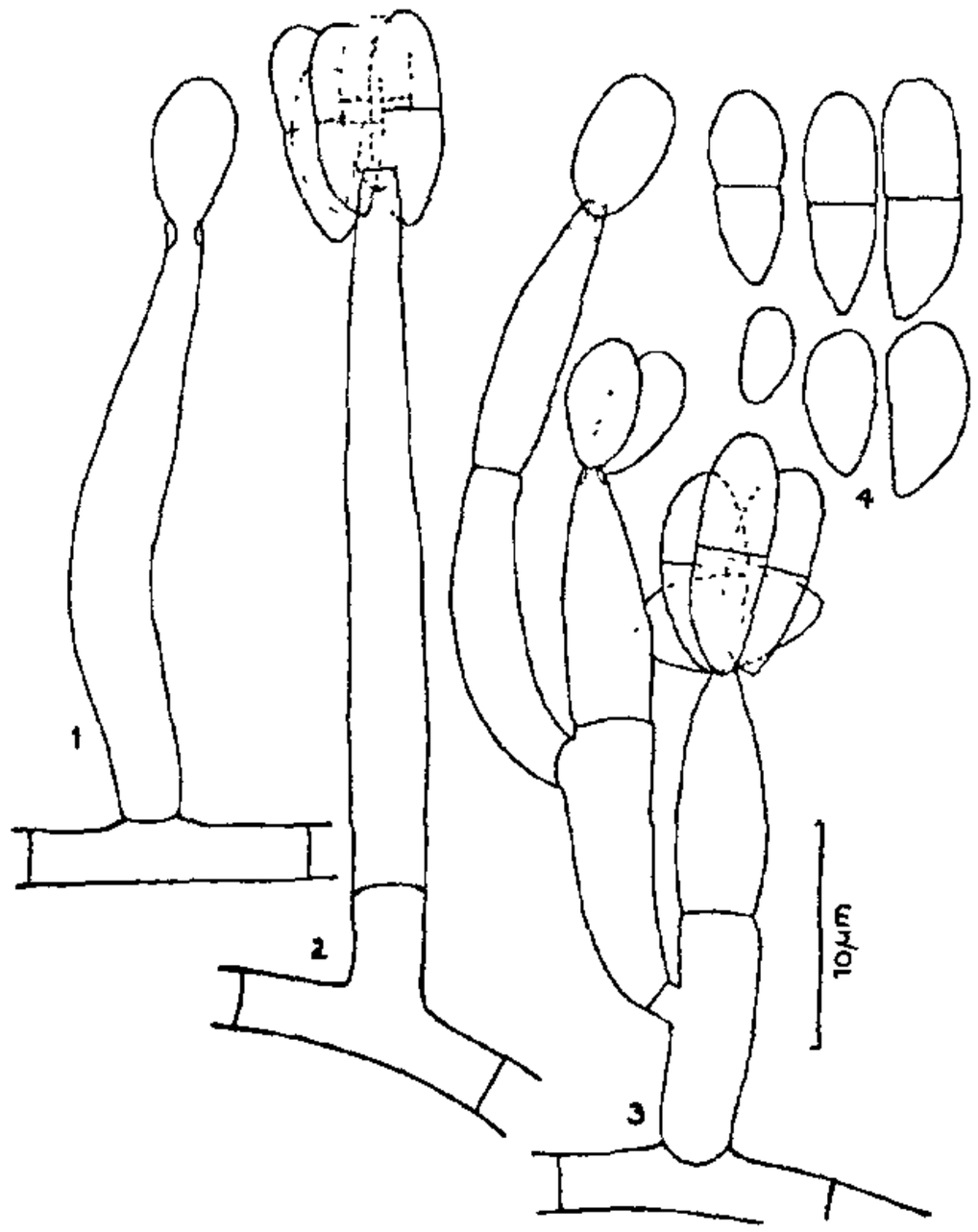
Cylindrocarpon uniseptatum P. N. Chowdhry, sp. nov.

Colonies snow white, dense, effuse. Mycelium superficial, composed of delicate, thin and smooth-walled, much branched, septate hyphae, 2.5–4 μm wide. Conidiophores (phialides) arising laterally from mycelial hyphae, simple or penicillately branched with apical phialides, 10–35 × 3–4.5 μm size. Conidia slimy, agglutinated into shiny globules at the mouth of phialides, almost colourless, cylindric to narrowly ovoid or obovoid, papillate-truncate at the base, rounded at the apex, at first continuous and about 7.5 μm, becoming 1-septate in the middle and upto 4–12 × 2–4 μm size (figures 1–4).

Habitat: In unhatched eggs of *Heterodera avenae*, IARI, New Delhi, Nov. 1981, P. N. Chowdhry, HCIO 34074 (holotype), ITCC 3229 (Isotypes).

Cylindrocarpon uniseptatum P. N. Chowdhry, sp. nov.

Coloniae niveae, dense, effusae. Mycelium superficiale, ex hyphis septatis, ramosissimis, laevibus, 2.5–4 μm latis, compositum. Conidiophora (phialidis) ex hyphis mycelialibus latera liter orinudo simplicia vel penicillate ramosa, phialidibus subulatis terminatia, 10–35 × 3–4.5 μm. Conidia mucosa, in globulis nitentibus agglutinata, fere incoloria, cylindrica vel tenuiter ovoidea vel subovoidea basi papillate–truncata, apice rotundata, primo continua et circa, 7.5 μm, deinde 1-septata et usque, 4–12 × 2–4 μm.



Figures 1–4. *Cylindrocarpon uniseptatum* **1.** Simple phialides, **2.** Simple phialides with agglutinated conidia, **3.** Branched phialids, **4.** Conidia.

Habitat: Ova inparere (*Heterodera avanae*), IARI, New Delhi, Nov. 1981, P. N. Chowdhry.
HCIO 34074 (Holotypus)., ITCC 3229 (Isotypus).

Table 1 *Comparison with uniseptate and new species of Cylindrocarpon.*

Name of species	Colonies	Conidiophores	Conidia	Chlamydospores
C. gracile[1]	White, becomy rose to red	Short lateral branches dividing into 3–4 metulae	Straight, Cylindrical with rounded ends 26–44 × 3–4 μm	Hyaline, brown 20–40 μm diam.
C. tenue[1]	Pale brown to deep reddish brown	Simple or penicillately branched 12–17 × 3 μm	Straight or curved tapering towards the base, 16–20 × 2–3 μm	Hyaline to brown 7–12 μm diam.
C. ugandense[2]	White	Simple, flexuous or undulate, 30–70 × 2.5–3 μm	Narrowly ellipsoidal to spindle shaped at both ends 24–32 × 3–7 μm	Absent
C. luteoviride[2]	Yellow, green	Simple, 30–50 × 2–2.5 μm	Cylindric to narrowly ovoid papillate-truncate base 16(20) × 3–4 μm	Absent
C. uniseptatum sp. nov.	White	Simple or penicillately branched 10–35 × 3–4.5 μm	Cylindric to narrowly ovoid, and truncate base. 4–12 × 2–4 μm	Absent

To justify the above new taxon, comparison with other known uniseptate species has been made as in table 1.

15 March 1983; Revised 24 August 1983

1. Booth, C., *Mycol. Pap.* CMI., 1966, **104,** 1.
2. Deighton, F. C. and Pirozynski, K. A., *Mycol. Pap.* CMI, 1972, **128,** 103.

HOST-PARASITE RELATIONSHIP: POSTHELMINTH INFECTION MUSCLE PROTEIN CHANGES IN BAT, *HIPPOSIDEROS SPEORIS*

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THE posthelminth infection macromolecular content changes were substantially worked out at the site of *infection*[1-4], and even in uninfected organs like liver[5,6] and blood[7-10]. In view of the meagre information regarding the posthelminth infection changes on the macromolecular contents of muscular tissue, it was thought worthwhile to investigate the protein and protein fraction contents in the thigh, flight and cardiac muscles of *Hipposideros speoris* during the intestinal infection with *Prosthodendrium dinanantum*[11,12].

The hosts of the present study were caught from Pakhal and starved for a day. Animals of uniform body weight were decapitated and the intestines were screened for helminth infection. In the isolated thigh, flight and cardiac muscle tissue, the total protein content was determined by the method of Lowry *et al.*[13] and protein fractions were assayed by the method of Helander[14].

The results presented in table 1, indicate the drastic decrease in the content of total proteins, sarcoplasmic, contractile and stroma fractions in all the three types of muscle tissue of the present investigation, during helminth infection.

The decrease in the total protein content in the infected liver was reported during fascioliasis[3] in cattle and opisthorchiasis[15] in dogs. Similar protein decrease in the muscular tissue of the present host, with intestinal infection suggests that the trematodes with their suckers attached to the intestinal wall interfere with the digestive and absorptive functions, thereby causing the depletion of proteins in the tissue and the

Table 1 *Post-helminth infected muscle protein changes in bat, Hipposideros speoris*

Muscle	Nature of study	Total Proteins		Protein Fractions: Sarcoplasmic		Contractile		Stroma	
		1	2	1	2	1	2	1	2
Thigh	a	146.6	130.2	50.6	41.9	31.5	24.9	61.4	58.7
	b	±3.2	±1.6	±5.0	±4.8	±1.5	±0.5	±3.6	±3.8
	c	—	−16.4	—	−8.7	—	−6.6	—	−2.7
	d	—	−11.2%	—	−16.9%	—	−21.1%	—	−4.4%
	e	—	0.05	—	0.05	—	0.01	—	0.02
Flight	a	152.1	134.0	59.9	52.3	44.7	33.5	48.8	46.5
	b	±1.4	±1.7	±4.7	±2.8	±4.7	±4.2	±4.7	±4.8
	c	—	−18.1	—	−7.6	—	−11.2	—	−2.3
	d	—	−11.9%	—	−12.6%	—	−22.7%	—	−4.6%
	e	—	0.01	—	0.05	—	0.001	—	0.05
Cardiac	a	153.1	133.8	61.5	50.5	37.1	31.6	39.9	36.0
	b	±7.6	±8.3	±3.9	±4.1	±1.6	±3.5	±4.6	±3.7
	c	—	−19.3	—	−11.0	—	−5.5	—	−3.9
	d	—	−12.6%	—	−17.8%	—	−15.6%	—	−9.7%
	e	—	0.01	—	0.01	—	0.01	—	0.01

1 = Control 2 = Trematode infection
a = Content b = Standard error c = Change d = Percentage of change e = P value
(Values are expressed in mg/gm (mean of 10 samples ± S.E.))