Summary

Unusual “spore tetrads” were observed for Myuroclada maximowiczii (Boroszcz.) Steere & Schof. in a single gathering from Okayama Pref., Japan. They include two cases related to the number of spores formed from a single sporocyte. The first case concerns polyads with 5-7 spores. Some hexads contain one binucleate spore, two one-nucleate spores of equal size equivalent to the size of normal spore, and three enucleate spores of unequal size, and some other hexads that contain one micronucleate spore, and one enucleate spore of smaller size than other five one-nucleate spores. The second case concerns tetrads with 4 spores of equal size. Some spore tetrads contain one binucleate or a spore with a much larger nucleus appearing to be a restituted nucleus and one enucleate spore or micronucleate spore. Some other spore tetrads contain spores with an additional micronucleus. The frequency of occurrence of polyads is 34% and 39% in the two capsules where polyads were observed. Meiotic division was also examined. There were noted a chromosome bridge and lagging at telophase-I and micronuclei at telophase-II. The frequency of any irregular behavior of chromosomes is 1%, 30%, 35%, 45% in capsules where such irregular behavior was observed. Polyads found in M. maximowiczii seem to be derived from unusual divisions of the sporocyte, for which detail is unknown. They differ in origin from the polyads of Dicnemoloma pallidum that are formed by the fusion of two sporocytes, and independent, unsynchronized meiotic division of the two nuclei within a common cell wall (Ramsay 1973).


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