POLLEN GRAINS IN THE POLLEN CHAMBER OF A SUPPOSED GINKGOALEAN SEED

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Pollen grains of *Cycadopites*-type were found in the pollen chamber of a supposed ginkgoalean seed *Allicospermum* sp. from the Middle Jurassic deposits of Uzbekistan (Angren locality). The pollen grains were studied with help of LM, CLSM, SEM, and TEM. All pollen grains show the identical morphology and exine ultrastructure allowing us to suppose that they all have the same botanical affinity. The pollen morphological data do not contradict the ginkgoalean interpretation of the seed; therefore, the pollen grains and the seed most probably did belong to the same parent plant. The pollen grains are monosulcate, the non-apertural surface is nearly smooth, with low short small elements, which are occasionally scattered over the surface or situated denser. The aperture and adjacent areas supposedly bear more distinct sculpturing of small verrucae or granules. The ectexine is composed of a prominent solid tectum, a thinner infratectum, and even thinner foot layer. Proximally, the infratectum is formed of one row of alveolae. Laterally, the alveolae become more voluminous, and the ultrastructure of the infratectum is more evident. Towards the aperture the ectexine becomes gradually thinner; over the aperture no sublayers can be discerned within the ectexine. The ectexine of the apertural region repeatedly varies in thickness, most probably reflecting finely verrucate or granulate surface of this region. The apertural exine tends to be folded. The endexine is multilamellate, although it is evident only in some regions of stained sections. The obtained data contribute to the knowledge about the exine ultrastructure of ginkgoaleans; nonetheless, a TEM study of ginkgoalean pollen grains extracted from pollen organs is still highly desirable.