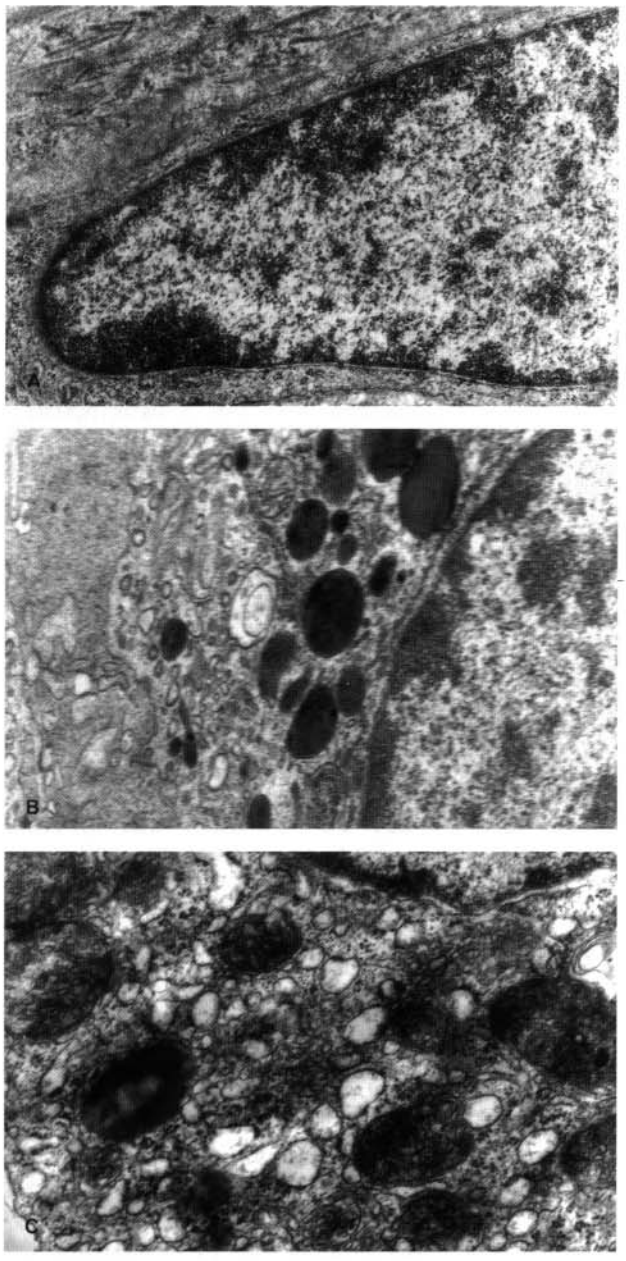

Fig. 2. Electron micrographs of newly formed LCs after EDS treatment. A. – 14 days after EDS. Fragment of progenitor LC with elongated spindle shape, irregular nuclei and little cytoplasm. Magnification 11 000x. B. – 21 days after EDS. Immature LC characterized by numerous lipid inclusions (L), appearance of smooth endoplasmic reticulum and mitochondria. Magnification 11 000x. C. – 30 days after EDS. LC transforming into the mature adult type. An abundance of smooth endoplasmic reticulum and tubular mitochondria was observed. Magnification 19 000x.

for the increasing enzyme activity of renewing LCs closely support this finding. A marked increase in the 3β-HSD activity also occurred between 21th and 30th postnatal days, when the population of mature LCs was developing (Dupont et al., 1993; Payne and O'Shaughnessy, 1996; Koeva and Popova, 1997). Therefore, the pattern of postnatal functional development of LCs seems to be similar to that seen during the recovery phase after EDS. In this respect, data by Teerds et al. (1999) indicating 3β-HSD as a marker for LC differentiation in adult rat testis post EDS bring additional support to the similarity between the steroidogenic enzyme pattern in normal and EDS-treated rats.

In conclusion, the restoration of new LC population after EDS repeats, to a great extent, the normal dynamics of LC postnatal development within a similar time range. The dynamics of appearance and intensity of investigated enzymes correlate with structural differentiation of the LC population.

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