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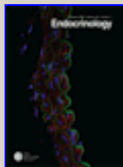
JOURNAL ARTICLE

Effect of corticosterone on rat epididymal lipids

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Corticosterone-induced changes in serum hormone profiles and the lipid composition of the caput and cauda epididymidis were studied. The analysis was conducted in both unwashed and washed (free from fluids and spermatozoa) epididymal tissues. Corticosterone treatment significantly depressed serum prolactin and testosterone but gonadotropins were unaltered. In the unwashed caput region, lipid analysis showed a significant decrease in total lipids, as well as in cholesterol, phospholipid, and the phosphatidyl inositol, phosphatidyl choline, and phosphatidyl ethanolamine fractions. However, in the unwashed cauda region, the total lipid and cholesterol content was not altered while total phospholipid and phospholipid fractions were significantly decreased. On the other hand, in the washed caput and cauda regions, corticosterone induced a significant increase in total lipid, glyceride, and the mono, di, and triglyceride fractions, leaving total phospholipid and its fractions unaltered. Following 20-day withdrawal of corticosterone treatment, all lipid classes returned to normal along with serum hormone profiles. Our findings imply that an excess of corticosterone influences epididymal lipids. These changes in the epididymal lipid pattern probably are reflected in fertility disorders in patients with glucocorticoid excess.

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