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THE ECTOPIC ADRENAL CORTICES IN ONE HUMPED CAMEL

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SUMMARY

The developing ectopic adrenal cortices from nodules. The nodules are embedded in the adrenal capsule, cortical parenchyma or even in the medullary zone of the adrenal gland. These nodules are encapsulated by connective tissue and consist of small polyhedral to columnar cortical cells.

INTRODUCTION

The ectopic adrenal cortices were described in man by Gruenwald (1), in ewes by Dukes (2), in ferrets by Holmes (3), and in bull and bullock by Das et al. (4). Currently nothing has been published about the ectopic adrenal glands in camel, therefore, this study was undertaken to describe the ectopic adrenal cortices in one-humped camel.

MATERIALS AND METHODS

Twenty-four adrenal glands were collected from twelve adult camels. The tissues were preserved in 10% formalin. Sections of five micrometers were prepared and stained with haematoxylin and eosin (5)

RESULTS

More than one ectopic adrenal tissue nodules were found in eight out of twenty -four adrenal glands. The accessory adrenal glands are enclosed in a thick connective tissue capsule (Fig.1) . Some of the accessory adrenal tissues are divided into smaller nodules by extension of trabeculae from the connective tissue capsule. These ectopic accessory adrenal glands consist of small polyhedral cells or straight columnar cells. The cell form clustures and have deeply stained nuclei. The nodules are closely associated with the adrenal gland and embedded in the outer capsule or in the periphery of the adrenal medulla .

DISCUSSION

Although the adrenal glands are derived from two embryologic sources which coalesced into a single morphologic organ later in development . The historila back ground explain that , the mesodermal components appear as thickening of coelomic epithelium, arranged in foci, located between the primitive urogenital ridge and the adjacent dorsal mesentry. The cells of foci proliferate and build up cords of cells which represent cortical primordia. The migration of ectodermal portion from the neural crest cells

establish the primordia of the medullary tissue (6,7). The cortical cells are forced to induce differentiation of the primordial medullary tissue into medullary zone (8). Thus , accessory masses of either cortical or medullary tissue may adhere to the nearby primitive glands and they are either carried out along in their subsequent migration and forms MARCHAND ADRENAL GLANDS (9) or adhere to the main adrenal gland and the presence of ectopic adrenal cortices is perhaps related to its dual embryologic origin as stated by Hullinger (11) or could be due to other factors which need to be explored.

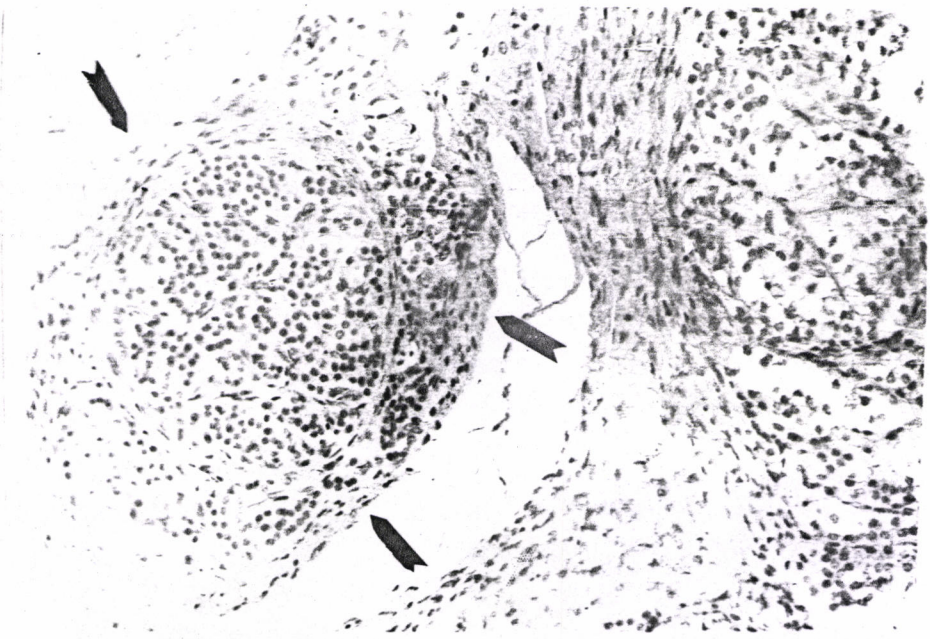

Fig. 1 Accessory adrenal gland (arrows), H&E, X400

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القشر الكظرية المهاجره في الجمل وحيد السنام

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الخلاصة

ينتمي نمو خلايا الكظر المهاجرة الى خلايا جنينية المصدر التي تشكل عقيدات. تنظمر العقيدات الكظرية الاضافية في محفظة الغدة الكظرية او في متن القشرة او في نطاق النخاع لغدة اللكظر. تحاط هذهالعقيدات بمحفظة من نسيج ضا ونتكون من خلايا صغيرة مضلعة الى خلايا عمودية قشرية.