سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

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التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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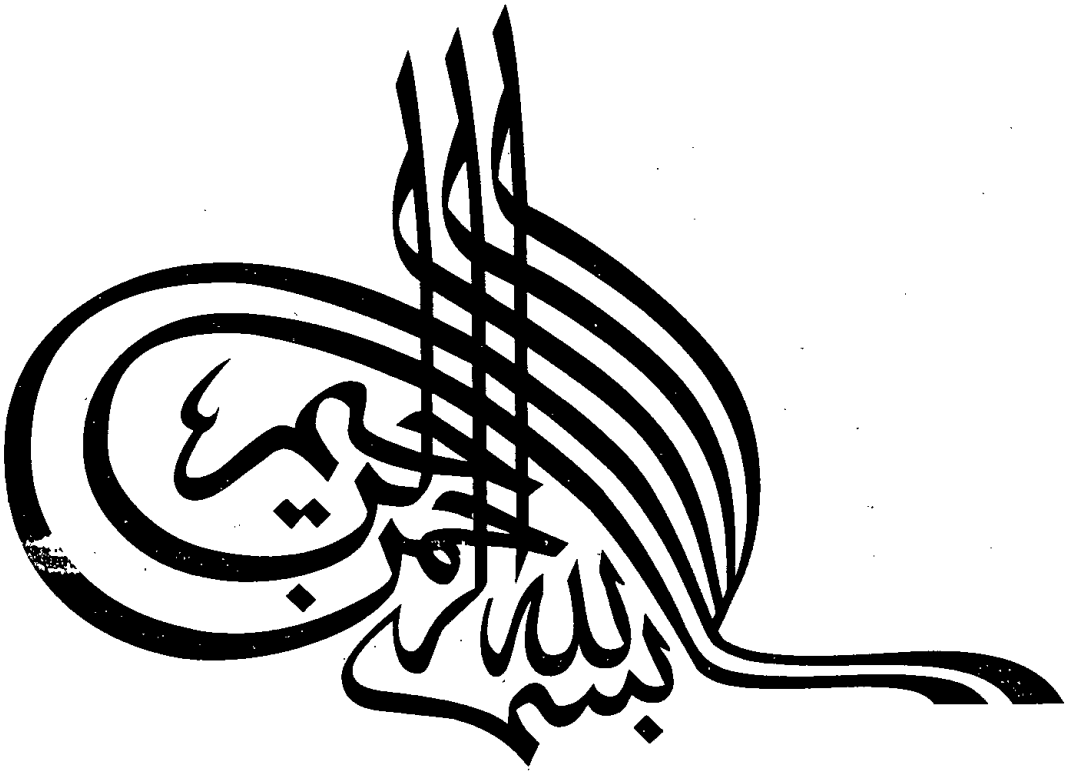
بعض الوثائق الأصلية تالفة

سامية محمد مصطفى

بالرسالة صفحات لم ترد بالأصل


بسم الله الرحمن الرحيم

SYSTEMIC EFFECT OF TOPICAL ADRENALINE IN OPHTHALMIC SURGERY

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by

Hossam El-Din Mohamed El-Dissoky
MBBCH, (Alex)

Faculty of medicine,
University of Alexandria.
2000

SUPERVISORS

Prof. Dr. Sherif Younes Amin Omar
Professor of anesthesia,
Faculty of Medicine,
Alexandria University.

Prof. Dr. Wafaa Mohamed Abdel-Latif Shafshak
Professor of anesthesia,
Faculty of Medicine,
Alexandria University.

Dr. Emad El-Din Abdel-Moneam Ali
Lecturer of Anesthesia,
Faculty of Medicine,
Alexandria University.

CO-WORKER

Dr. Yousry Ismael Mousa
Assistant professor of clinical pathology,
Medical Research Institute,
Alexandria University.

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INTRODUCTION

Anatomy of the Eye:

The orbit:

The orbit contains the eye ball and its muscles, nerves and blood vessels. Anteriorly the lacrimal apparatus lie within the orbit and eyelids. (1)

The bony wall of the orbit:[Figure 1]

The medial wall is in sagital plane and is formed from infront backwards by the frontal process of maxilla, the lacrimal bone, the orbital plate of ethmoid bone (largest part) and the body of the sphenoid.

The lateral wall slopes medially as it passes backwards and is formed anteriorly by the zygomatic bone and posteriorly by the greater wing of sphenoid.

The roof is formed mainly by the orbital plate of the frontal bone with the lesser wing of the sphenoid bone posteriorly. The floor is formed mainly by the roof of the maxillary sinus and the orbital process of the palatine bone posteriorly.

The apex is the narrow posterior part of the orbit. At the apex the superior orbital fissure which is the main communication between the orbit and cranial cavity, the optic canal lies above the medial end of the superior orbital fissure. The inferior orbital fissure lies posteriorly between lateral wall and the floor. (2)

Eye lids: [Figure 2]

The eye lids consists of an outer layer of thin skin continuous at the edge of the lid with an inner layer of modified skin called the conjunctiva, fibers of orbicularis oculi muscles, a plate of dense connective tissue called the tarsus and a prominent glands perpendicular to the edge of the lid between the conjunctiva and the connective Tissue called the tarsal (meibomian) glands. At the edge there is the eyelashes.

The conjunctiva contains a large number of small blood vessels. The conjunctiva is reflected on the sclera on all sides forming the conjunctival sac, and becomes further modified in front of clear part of the eyeball, the cornea. (1)

The lacrimal apparatus: [Figure 3]

The lacrimal gland lies in a hallow in upper lateral part of the front of the orbit and extends into the lateral region of the upper

eyelid. The duct of the gland open into the conjunctival sac. The tears pass across from lateral side of the conjunctival sac to its medial side due to capillary attraction and the blinking of the eyelids.

Drainage of tears:

The tears reach the lacrimal canaliculi one in each eyelid through the lacrimal punctum. The superior and inferior canaliculi ends in the lacrimal sac which is the upper part of the nasolacrimal duct. The nasolacrimal duct opens into the anterior part of the inferior meatus of the nasal cavity.

The eyeball: [Figure 4]

The eyeball is an almost spherical structure which consists of three coats. The interior of the eyeball contains fluid under pressure and is divided into two compartments by a vertical partition. The posterior compartment is larger than the anterior one. [2]

The outer coat is the sclera, which consists of a dense white fibrous tissue. The anterior transparent part of the sclera is the cornea, which is avascular structure and richly innervated by the ophthalmic nerve. The cornea forms about one sixth of the circumference and is of different radius from that of the sclera.

The middle coat is the uveal tract or vascular coat and consists of the choroid which lines the sclera as far as the corneoscleral junction. The choroid consists of an outer layer of pigmented cells which prevent light passing through the sclera. The vascular layer has nutritive function in relation to the outer part of the retina.

At the corneo scleral junction the choroid is called the cilliary body. It contains smooth muscle fibers (the cilliary muscles) which make it more bulky than adjacent choroid and iris. The suspensory ligament of the lens is attached to the posterior of cilliary body. The cilliary body produce the aqueous humour which is a clear watery fluid circulating in the anterior part of they eye ball (the anterior chamber). The fluid passes through the pupil into the space between the iris and the cornea and is reabsorbed into the sinus venosus sclerae. From there the fluid reenters the circulation (in continues dynamic). The cilliary body becomes the iris. The colored part of the eye which is a circular structure separated from the cornea, with a hole in its center called the pupil, it contains a smooth muscles arranged as an inner circular sphincter pupilae and outer radially arranged dilator pupillae.

The inner coat is called the retina which is the light sensitive layer. The optic disc lies slightly medial to the posterior pole of the