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Histopathological Study of Placenta in Cases of Hypertension During Pregnancy

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ABSTRACT

This study was carried out in order to investigate the histopathological changes in the placenta of hypertensive pregnant women. A collection of forty placenta samples from hypertensive pregnant women associated with forty placenta samples from normal pregnancy selected as control group. The pregnant women were admitted to Al-Khansaa Maternity hospital in Mosul.

The histopathological changes in hypertensive placenta included fibrosis with stenosis of maternal arteries, shedding and discontinuation of syncytial border in the decidua, hemorrhage inflammatory exudates and necrosis in the decidua basalis. Accumulation of huge amount of fibrinoid deposits was present in maternal decidua and large amount of collagen fibers surrounded the villous stroma and maternal decidua.

A possible explanation for the results of this study is that the hypertension in pregnancy have enormous affect on inducing histopathological changes in the placenta of hypertensive pregnant women.

Pathophysiology

systolic pressure

Williams and)

(Sleight, 1978)

Diastolic pressure

(Braunwald, 1978)

Brest and Moyer (1978)

.(Peart, 1977)

: Pickering (1968)

.....

Primary Hypertension	-1
Secondary Hypertension	-2

(Rippman, 1969)

(Davey and MacGillivray, 1988)

(Chesley , 1978a)

.(Gant and Worly, 1980a)

:

.Gestational Hypertension (GH)	•
.Chronic Hypertension (CH)	•
Unclassified Hypertension	•
.and / or Proteinuria	

Placenta

Raju,)

.(1996

Discoid

600-500

3

25-15

Fetal Surface

granular

Maternal Surface

cotyledons

lobes

30-15

-:

grooves

:Fetal portion :

chroin fromsdoum

.(Sadler, 1985) **maternal portion**

chorionic villi

fetal

mesenchymal

collagen fiber

capillary

Hafbauer cell

Langhnas cell

cytotrophoblast

syncytotrophoblast

chorionic villi

decidual cells

.(Raju, 1996)

2006/6/20

2005/9/20

40

80

40

40-38

45-17

Normal Saline

.....

Natural buffered formalin 10%

.

(Dehydration)

(Luna, 1968) 100%, 100%, 90%, 90%, 70

2

Microtome

.

6-4

:

Verhoff's-van Gieson method for

-

-1

collagen fibers (Luna, 1968)

Von-kossa technique for calcium (Luna, 1968)

-

-2

Olympus, Japan

(Biolab Line Altaya 1007, Taiwan)

/

zoom

factor

.

.

.(2 1)

(TV)

:1

.(100x) .

.(DB)

(DB)

:2

.(400x) .

.(TV)

.....

placentaemegaly

round

foci

(4)

(3)

Verhoff's- Van

-

(5)

-

Gieson

(8)

(7 6)

Knots

(9)

(10)

.(11)

(TH)

:3

. (400x) .

.(DC)

:4

- .(←)

.(400x) .

:5

(F)

.(400x) .

-

(V)

(1) :6
 (400x) . - (4) (3) (2)

:7
 (400x) . - . (←)

:8

.(←)

(400x) . - -

:9

.(400x) . - -

.(←)

.....

:10

.(400x) . - .(←)

:11

.(400x) . - .(←)

.(Raju, 1996 Sadler, 1985 ; Copenhaveur *et al.*, 1978)

Nicoloides , 2000; Raju, 1996;)

(Moore, 1983; Copenhaveur *et al.*, 1978

Vascular

Kuptermance)

endotheial growth factor

Vasoconstruction

.(*et al.*,1997

Nitric Oxide

Nitric oxide synthase

Davisson *et al.*, 2002 and)

Placental

(Kuptermance *et al.*, 1997

Iscaemia

Hypoxia

.(Al-Ahmadie and Stanek, 2006)

.(Williams and Btauneald, 1987) Dystrophic Calcification

Fibrinoid necrosis

Al-Ahmadie and Stanek,)

Arteriosclerosis

.(2006; Zeek and Assali,1950

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