The material used for the present study was human foetuses. 44 specimens (22 male and 22 female) ranging from three to nine months were obtained from the department of Obstetrics and Gynaecology, AIIMS Medical College and Hospital, Jhansi.

After noting down the obstetrical history of the mother (Table no. 1). The foetuses were serialised according to their age and C. R. (crown-rump) length. Gross parameters of the foetuses were taken, before taking out the suprarenal glands for histomorphological study. The abdominal cavity was opened by mid-line vertical incision. The intestines were removed and suprarenal glands were located on the top of the kidneys attached to posterior abdominal wall.

After studying the relations and blood supply, the suprarenal glands were taken out and were subjected to gross observations (colour, shape, size and weight).

Each suprarenal gland was cut into three pieces by horizontal incisions and were kept in 10% formal saline for 48 hours for fixation. The tissues there after were processed for paraffin wax embedding. The paraffin blocks were subjected to microtomy and three to five
micron thick sections were cut by vescowax rotatory microtome and were fixed on glass slides for the purpose of staining. The sections were stained in haematoxylin and eosin, periodic acid Schiff (PAS), Toluidine blue and mamson's Trichrome stain.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Age of mother year</th>
<th>Gynae/Obst history</th>
<th>Duration of amnurroea</th>
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<tr>
<td>1.</td>
<td>18</td>
<td>1 G0 A1</td>
<td>14 week</td>
</tr>
<tr>
<td>2.</td>
<td>28</td>
<td>14 G3 A1</td>
<td>14 week</td>
</tr>
<tr>
<td>3.</td>
<td>18</td>
<td>1 G0 A1</td>
<td>16 week</td>
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<td>1 G0 A1</td>
<td>17 week</td>
</tr>
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<td>17 week</td>
</tr>
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<td>7.</td>
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<td>12 G0 A2</td>
<td>18 week</td>
</tr>
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<td>1 G0 A1</td>
<td>10 week</td>
</tr>
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<td>9.</td>
<td>29</td>
<td>3 G2 A1</td>
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<td>19 week</td>
</tr>
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<td>19 week</td>
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<td>12.</td>
<td>30</td>
<td>4 G3 A1</td>
<td>19 week</td>
</tr>
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<td>13.</td>
<td>25</td>
<td>1 G0 A1</td>
<td>20 week</td>
</tr>
<tr>
<td>14.</td>
<td>36</td>
<td>4 G3 A1</td>
<td>20 week</td>
</tr>
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<tr>
<td>10.</td>
<td>39</td>
<td>$C_4 \cdot C_3 \cdot A_1$</td>
<td>21 week</td>
</tr>
<tr>
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<td>37</td>
<td>$C_5 \cdot C_4 \cdot A_1$</td>
<td>21 week</td>
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<td>$C_2 \cdot C_0 \cdot C_2$</td>
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<tr>
<td>34.</td>
<td>26</td>
<td>$C_3 \cdot C_2 \cdot A_1$</td>
<td>25 week</td>
</tr>
</tbody>
</table>
1. Preparation of stains:

- Sodium alum 55 gm.
- Distilled water 600 ml.
- Ethyl alcohol 150 ml.
- Glycerol 150 ml.
- I. Salmastain 6 gm.
- II. Alcian blue 2 g.
- III. Azure A 0.1 g.
- IV. Orange G 0.1 g.
- V. Hematoxylin 1 g.

2. Procedure:

- 1 week
- 2 week
- 3 week
- 4 week
- 5 week
- 6 week
- 7 week
- 8 week
- 9 week
- 10 week
- 11 week
- 12 week
- 13 week
- 14 week
- 15 week
- 16 week
- 17 week
- 18 week
- 19 week
- 20 week
- 21 week
- 22 week
- 23 week
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- 35 week
- 36 week
- 37 week
- 38 week
- 39 week
- 40 week
- 41 week
- 42 week
- 43 week
- 44 week
- 45 week
- 46 week
- 47 week
- 48 week
- 49 week
- 50 week
- 51 week
- 52 week
Method of Preparation:

Solutions no. a, b and c were prepared separately. The solution no. a and b were mixed and left over night. After filtering the stored solution the solution no. 'c' was mixed.

Ripening: Like uhlich's stain, delafield's needs to be stored for 1 - 2 months in a light warm placed to ripen.

b). eosin

Reagent:

Eosin 2 gm.
Distilled water 100 ml.

Method of preparations:

2 gm. Eosin was dissolved in 100 ml. distilled water and filtered. The stain was ready for use.

2. HEUT OF CI STAIN: (Haematoxylin and Eosin)

1). paraffin sections fixed on slides were cleared in xylene.

2). Slides were brought to 30% of alcohol through descending grades.

3). Stained in haematoxylin for 15 to 20 minutes.

4). Slides washed in running tap water.

5). Differentiation of stain done in acid alcohol (1% Acid + 70% Alcohol).
6). Stained in eosin for 3 - 5 minutes.

7). Excess of eosin were washed in running tap water.

8). Slides were brought to absolute alcohol through ascending grades.

9). Stained slides were cleared in xylene by two changes.

Finally sections were mounted by using L.P.X. (1.52 R.I.) mounting medium for microscopic examination of the slides.

2. P.A.S. (Periodic Acid-Schiff) stain:

Reagents:

a). 0.5% aqueous per-iodic acid.

b). Schiff's reagent.
   i). Basic fuchsin 1 gm.
   ii). Sodium metabisulphite 1.9 gm.
   iii). N/1 Hydrochloric acid 15 ml.
   iv). Distilled water 85 ml.
   v). Activated charcoal 0.5 gm.

Method of preparation:

1 gm basic fuchsin and 1.9 gm sodium metabisulphite were dissolved in 15 ml N/1 Hydrochloric acid and to this solution, 85 ml distilled water was added.
shaking frequently the solution for two hours, 0.5 gm activated charcoal was added and shaken well for 2 minutes. Finally the solution was filtered and stored at 0 - 4°C. The colourless solution was ready for use.

c). Sulphurous acid rinse:

1). 10% aqueous sodium metabisulphite 6 ml

ii). H/1 Hydrochloric acid 5 ml

iii). Distilled water 100 ml

Method of preparation:

Solution nos. 1 and 2 mixed and then adding 100 ml distilled water and solutions were ready for use.

d). Dalefield's alum Haematoxylin.

e). Sturated solution (0.3%) of tartresine in cellosolve.

2- Method of staining:

1). Paraffin sections fixed on slides were brought to water by clearing in xylene and hydrating through descending grades of alcohol.

2). The slides were put into preiodic acid for 2 minutes.

3). Washed in running tap water for 5 minutes.

4). Rinsed in distilled water.

5). Kept in schiff's reagent for 15 to 20 minutes.
6). Three changes were done in sulphurous acid for 2 minutes, for each change.

7). Slides again washed in running tap water.

8). Stained in Delafield's Haematoxylin for 2 minutes.

9). Washed in running tap water for 5 minutes.

10). After rinsing the slides into absolute alcohol, were kept into the tartrasine solution for 1 minute.

11). Slides were again rinsed in absolute, alcohol cleared in xylene and were mounted by using D.P.X.

3. Toluidineblue (colour index - 52040):

(Used for - the demonstration of acid mucopoly-saccharides, especially connective tissue mucins)

Reagent:

1. Toluidin blue.

a). Method of preparation:

1 gm toluidin blue was dissolved in 100 ml tap water and solution was ready for use.

b). Method of staining:

1). Paraffin sections fixed on slides were cleared in xylene.

2). Slides were brought to 30% of alcohol through
3). Rinsed in distilled water.

4). Kept in 1% toluidine blue solution for \( \frac{1}{2} \) to 1 minute.

5). Rinsed in distilled water.

6). Blotted with hard filter paper.

7). Allowed the sections to dry.

8). Stained slides were cleared in xylene and mounted in D.P.X.

4. MASSON'S TRICHROME TECHNIQUE:

(used for the demonstration of connective tissue)

(The formal fixed section was mordanted in Zonker's fluid over night)

1. Preparation of stain:

1). 1% ponceau 2 R (colour index 16150) in distilled water.

ii). 1% acid fuchsins (colour index 42685) in distilled water.

iii). 1% acetic acid.

iv). 1% phosphomolybdic acid solution.

v). 1% light green in distilled water.

vi). Haematoxylin.

vii). 1% hydrochloric acid.

viii). 70% alcohol.
1. **Cytoplasmic stain:**
   Solution no. 1 and 2 were mixed in equal quantity. 100 mg of this solution was mixed with 100 ml 1% acetic acid.

2. **Acid Alcohol:**
   Solution no. 7 and 8 mixed in equal quantity.

**Method of staining:**

1). Paraffin sections fixed on slides were cleared in xylene and hydrated by descending grades of alcohol and finally rinsed in water.

2). Stained by haematoxylin for 15 - 20 minutes.

3). Washed in running tap water.

4). Differentiated in acid alcohol.

5). Washed in running tap water.

6). Rinsed in cytoplasmic stain for 5 minutes.

7). Slides were rinsed in distilled water then kept in 1% aqueous phosphomolybdic acid for 5 minutes.

8). Rinsed in distilled water and stained in 1% aqueous light green for 5 minutes.

9). Excess of green stain was removed by 1% acetic acid.
10). Slides were brought to absolute alcohol through ascending grades.

11). After clearing the slides into the xylene sections were mounted by D.R.K.

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NOTE:

- Abbreviations used:

P - Parity
C - Cravida
A - Abortion