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B stain for about 2 minutes, then washed in tap water for 10 minutes.

3. Sections were put into ascending grades of alcohol (50%, 70%, 90% and 100%) for 2 minutes in each.
4. The sections were cleared in two changes of xylol each for about 2 minutes.
5. Sections were mounted with canada Balsam, and left to dry in an oven at 37°C.

* Results :

Nuclei → blue, blue-black

cytoplasm → Shades of pink

Collagen → light pink

Red blood cells → red-bright orange.

II. Masson's Trichrome Stain : (Drury and Wallington,1980)

For demonstration of the collagenous tissue and muscle fibers.

* Preparation :

a. Masson's Stain :

- Cytoplasmic stain :

  1 % Ponceau dexylidine in 1% acetic acid (2 parts).

  1% Acid Fuchsin in 1% acetic acid (I part) .

- Differentiation and Mordant :

  1% Phosphomolybdic acid in distilled water

- Fiber stain :

  2 % aniline blue dye .

b. Weight's Iron Haematoxylin :

Basic fuchsin	2 gm.
Rosorcin	4 gm.
Distilled water	200 ml.
30% Ferric chloride	25 ml.
95% alcohol	200 ml.
Concentrated Hcl	4 ml.

2 gm. basic fuchsin and 4 gm. resorcin were added to 200 ml. distilled water in a beaker, then boiled and when both ingredients had been dissolved and while still boiling, 25 ml. of 30% ferric chloride was added. The stirring and boiling were continuous for a further 2-5 minutes untill the coarse precipitate was ceased to form . The solution was filtered and the filterate was discarded.

The precipitate was dried on the filter paper by leaving it over night in the incubator. The filter paper and its content were returned to the beaker which contained small amount of residual precipitate. 200 ml. of 95% alcohol was added and the precipitate was dissolved by gentle heating in water bath or on an electric hot plate.

When dissolved, the solution was left to cool then filtered and the volume was restored to 200 ml. with 5% alcohol. 4 ml. conc. Hcl was added and bottled with a tightly filting stopper. This solution could be used for many months.

* Technique :

1. Sections were put in water for 3 minutes.
2. Stained with weighert's iron haematoxylin for 15-20 minutes.
3. Sections then were washed well in tap water then rinsed in distilled water.
4. Stained in the red cytoplasmic stain for 5-10 minutes.
5. Then rinsed in distilled water.
6. Sections were differentiated in 1%. phosphomolybdic acid, to decolourized the collagen and keeping the red colour of the muscle fibers red blood cells and fibrin.
7. The sections then rinsed in distilled water.
8. The sections were counter stained in aniline blue for 2-5 minutes.

9. Wash well in 1% acetic acid for at least one minute.
10. Then the sections were blotted, dehydrated in absolute alcohol, cleared in xylene and mounted in a synthetic resin medium.

Results :

Nuclei → black

Muscle, red blood cells, fibrin → red

Collagen → blue .

III. Orcein Stain : (Drury and Wallington, 1980)

For demonstration of elastic fibers.

* Preparation :

Orcein (synthetic)	1 gm.
80% alcohol	100 ml.
Conc. Hcl	1 ml.

* Technique :

1. Sections were dewaxed in two changes of xylol, each change for 5 minutes then were taken to water via descending grades of alcohol.
2. Placed in closed Jar of the stain for ½-2 hours, at room temperature.
3. Wash well in 70% alcohol, the staining of collagen might be removed by treatment with 1% acid alcohol.
4. Washed, well in tap water.
5. Counter stain the nuclei lightly with methylene blue.
6. Dehydrate, clear, and mount in synthetic resin medium.

* Result :

Elastic fibers	→	dark brown
Nuclei	→	blue

IV. **Van Geison's Stain**: (Drury and Wallington, 1980)

Used for staining collagenous tissue and muscle fibers.

* Preparation :

- Van Geison solution .
  - . Saturated aqueous picric acid 100 ml.
  - . 1% fuchsin in distilled water 5-10 ml.
- Weighert's iron haematoxylin :

  Had described previously.

* Technique :

1. Sections were put in water for 3 minutes.
2. Nuclei were stained with weighert's iron haematoxyline for 20-30 minutes.
3. Pushed in tap water and followed by a rinse in distilled water.
4. Put in Van Geison solution for 2-5 minutes.
5. Rinse in distilled water.
6. Dehydrated in absolute alcohol, cleared in xylene and mounted in asynthetic resin medium.

Results :

Nuclei → brown black to black

Collagen → deep red

Muscle, cytoplasm, red blood, fibrin → yellow

V. Gordon and Sweets Reticulin Stain : (Drury and Wallington, 1980) .

For demonstration of reticular fibers .

* Preparation :

Silver solution : add strong ammonia to 5 cm^3. of 10.2% silver nitrate drop by drop untill the resulting precipitate was just dissolved. Add 5 cm^3. of 3.1% sodium hydroxide and redissolve the precipitate with a few drops of ammonia. Dilute up to 50 cm^3. with distilled water.

* Technique :

1. Sections were put in water for 3 minutes.
2. Oxidized for 1-5 minutes in 0.5% potassium permenganate (47.5 cm^3) + 3% sulphuric acid (2.5 cm^3).
3. Washed briefly in water.
4. Bleached in 1% oxalic acid.
5. Rinsed in distilled water followed by through washing in tap water.
6. Sensitized in 2.5% iron alum for ½-2 hours .
7. Washed throughly with two or three applications of distilled water.
8. Covered with the silver solution for 10-30 second untill sections became transparent.
9. Washed well with distilled water.
10. Reduced with 10 percent neutral formalin for 1-2 minutes .
11. Washed in tap water followed by distilled water.