**UW Medicine - Pathology**

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Gomori's Blue One Step Trichrome Method for Demonstration of Collagen and Muscle Fibers Procedure

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| Adopted Date: 06/20/05  Review Date: 09/03/10  Revision Date: 05/30/13 |

PURPOSE

To identify the method for performing the special stain of Gomori's One Step Trichrome method for demonstration of collagen and muscle fibers procedure.

PROCEDURE

**Fixation:**

10% Buffered Neutral Formalin.

**Sectioning:**

Paraffin sectionsat 4um.

**Solutions:**

(Use Type II de-ionized water for all solution preparation)

**Bouin’s Fluid**

Premade from Richard Allan Scientific.

**Weigert’s Iron Hematoxylin Solution: Solution A**

Premade from Richard Allan Scientific.

**Weigert’s Iron Hematoxylin Solution: Solution B**

Premade from Richard Allan Scietific

**Weigert's Iron Hematoxylin**

*Working Solution*

Solution A 30.0 ml

Solution B 30.0 ml

Filter before use. Stable for one week.

**Gomori's One Step Trichrome Stain**

Chromotrope 2R (CI# 16570) 3.0 gm

Aniline Blue 1.5 gm

Glacial acetic acid 5.0 ml

Phosphotungstic acid 4.0 gm

Distilled water 495.0 ml

Stable for six months. Refrigerate.

**1% Glacial Acetic Water**

Distilled water 495.0 ml

Glacial acetic acid 5.0 ml

Stable for six months.

**Procedure:**

Use control slide.

1. Deparaffinize and hydrate to distilled water.
2. Mordant slides in preheated Bouin's for 1 hour in 60 degree oven .
3. Wash slides in running water until sections are colorless (approx. 5 min)
4. Place in Weigert's Iron Hematoxylin for 10 min with fresh solution, 20 min for 2nd day, and 25 min for 3rd day (discard after 3 days)
5. Wash slides in running water for 5 minutes.
6. Place slides in Gomori's One Step Trichrome solution for 30 min.
7. Differentiate in 1% Glacial Acetic acid for 4 minutes.
8. Dehydrate in 95% and Absolute alcohol.
9. Clear in Xylene and mount.

**Results:**

Muscle fibers red

Collagen blue

Nuclei blue to black

REFERENCES

1. *Manual of Histologic and Special Staining Technics*, McGraw-Hill Book Co., 1960, pg. 66. Modified by Histopathology Laboratory, Harborview Medical Center, Seattle, WA.
2. Sheehan, D.C. and Hrapchak, B.B.: *Theory and Practice of Histotechnology*, The C.V. Mosby Co., 1980, pg. 191.

Written By: Director Approval:

(Signature and Date) (Signature and Date)

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Histology Supervisor