

The Method of Making the Lymphatic Vessel Casting Model Sample

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The makes of casting model sample of artery and vein are very popular, and the study about it is particular. The research progress of the lymphatic vessel casting sample, however, is still slow. The main reasons are as follow: The diameter of lymphatic vessel is smaller and the wall is thinner, there are achromatous lymph fluid and valves in lymphatic vessel. Another reason is that the ideal casting agent is undiscovered. Some resin fillings were reported to affuse the lymphatic vessel successfully at home and abroad, such as organic vitreous monomer, colophony and synthetic resin trimer^[1], colophony and synthetic resin trimer is composed of Mercox CL-2B-5 (blue) and mercox CL-2R (red), those were merely applicable to the observation with the scanning electric microscope^[2]. We have made the lymphatic casting model sample of animal's viscera with common affuse agent successfully. The sample can be observed by naked eyes. It's reported as follows:

MATERIALS AND METHOD

Material:

1) to remove the heart, stomach and intestine from the goat or sheep being experimented, and put them, into the porcelain dishes. 1ml and 2ml injector, 4 size scalp pinhead and some absorbent cotton.

2) preparation of fillings agent: 2% and 5% over the ethylene of chlorine and ethyl acetate ester filling 250ml respectively, add a little green painting material, mixed fully and filtrate with 6 layer pledget.

3) Some 1% carbon ink.

Injection method:

1) Direct injection method: Draw the 2% confected casting model preparation 2ml, inject from far point of the viscera, upturn the needle tine slant, angled 15° to the face of viscera material, inject into the sub-serous membrane of the viscera (or under the heart ectoblast) lightly, and slowly, then the superficial lymphatic vessel of the viscera can be seen. The injection continue and accompanied by massage lightly with the finger ab-

domen or cotton swab centripetally. Then puncture the appeared lymphatic vessels At 10° angle, 5% filling agent was injected into the lymphatic vessel directly, and continue to make massage simultaneous.

2) Indirect injection method: About 1 ml carbon ink was injected deep to the viscera lightly and slowly. The needle should puncture to sub-serous membrane about 0.2cm~0.4cm depths. when the lymphatic vessel appeared on the surface of the viscera, puncture the lymphatic vessels with 5% filling agent was injected into the lymphatic vesseles directly, and the massage same as the matheds mentioned above followed. After injection, put the sample into the 40°~60°C temperature water for 3-12h, and then put it into 15%~20% NaOH (60°) to be corroded. The corrosive liquor changed everyday. Pruning away the surplus branch after flush with the tap water for 24h, and the lymphatic vessel casting model sample can be finished.

The experience of operation: (1) Keep the needle stable when injecting depth to the serous membrane, neither too deep nor too superficial. (2) The wall of lymphatic vessel is thin, and the volatilization of the filling easily in a short time, so the time of injecting filling should be longer. (3) Ink is easy to permeate into the lymphatic vessel, so we can use the ink as the guide firstly and then inject the casting model preparation into the lymphatic vessel. (4) One injection point can not show all lymphatic vessels, so it is necessary to choose as many injecting points as possible.

REFERENCES

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