

TABLE A-continued

Characteristic	Preferred	Permissible
Acid	Acetic	Hydrochloric, sulphuric, phosphoric, organic
Acid Concentration	0.026 N	0.02 to 1.0 N

Permissible ranges are not independently variable. Chitosans of high molecular weight and lower deacetylation will require higher acid concentrations just to put the material into solution.

*compared to normal blood solute concentration.

The conclusions to be reached by studying Experiments I-IX hereinabove are that the chitosan of this invention does achieve hemostasis, does inhibit fibroplasia and does promote tissue regeneration.

We claim:

1. The method of inhibiting fibroplasia and promoting tissue regeneration in vascular grafts which comprises placing, an effective amount of chitosan in contact with the graft, said chitosan being between 42 to 100 percent deacetylated; said chitosan having a molecular weight range of 10,000 to 2,055,00; said chitosan being soluble in distilled water and an acid selected from the group of hydrochloric, sulphuric, phosphoric and organic acid having an acid concentration of 0.02 to 1.0N; said chitosan solution having a pH of 1 to 8.

2. The method of claim 1 wherein the chitosan is incorporated in the graft material.

3. The method of inhibiting fibroplasia and promoting tissue regeneration in a wound which comprises placing in contact with said wound an effective amount of chitosan, said chitosan being between 42 to 100 percent deacetylated; said chitosan having a molecular weight range of 10,000 to 2,055,00; said chitosan being soluble in distilled water and an acid selected from the group of

hydrochloric, sulphuric, phosphoric and organic acid having an acid concentration of 0.02 to 1.0N; said chitosan solution having a pH of 1 to 8.

4. The method of claim 3 wherein said chitosan is 78 to 92% deacetylated.

5. The method of claim 3 wherein the chitosan is in solution with distilled water and acetic acid and has a pH of approximately 4.

6. The method of claim 3 wherein said chitosan is in solid form.

7. The method of claim 6 wherein said chitosan is a salt prepared by dehydrating an acid solution of chitosan.

8. The method of claim 7 wherein said chitosan comprises a powder.

9. The method of claim 7 wherein said chitosan is a film.

10. The method of claim 7 wherein said chitosan is a sheet.

11. The method of claim 7 wherein said chitosan is in fiber form.

12. The method of claim 11 wherein said chitosan fibers are formed into mats.

13. The method of claim 11 wherein said chitosan fibers are formed into plugs.

14. The method of claim 3 wherein the blood of the wounded subject is anticoagulated.

15. The method of claim 3 wherein the wound is locally anticoagulated.

16. The method of achieving hemostasis, inhibiting fibroplasia and for promoting tissue regeneration in a wound which comprises placing an effective amount of polyglucosamine in contact with the wound.

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