Wellington School of Medicine

REPORT ON ASSAYS FOR INHIBITION OFANGIOGENESIS

We received samples of shark cartilage preparations from Aroma New Zealand Ltd (via IRL) on December 16, 1998.

These were labelled as: Traditional Process
Bio-active Shark *TM, pending*

We have investigated the angiogenic inhibitory activity of these using an assay based on the method described by Brown et al (Lab Invest, 75: 539-550, 1996). This involves embedding a piece of vascular tissue in a gel of fibrin and incubating it in a serum-free culture media. After approximately 5 to 7 days, microvessels are detectable growing out from the perimeter of the issue. The rate of growth of these is followed microscopically and images are recorded.

To evaluate the effect of the shark cartilage preparations, samples of the two shark cartilage preparations were incorporated into the gel during its preparation. The concentration of shark cartilage in each assay gel was 0.8mg/ml. Therefore all cartilage samples are the same concentration and so the relative effects of the angiogenesis arising from both preparations are directly comparable. Both preparations were tested in triplicate. The extent of the capillary growth relative to the size of tissue piece was measured for each culture.

RESULTS

The growth rate of capillaries in the presence of Bio-Active Shark was only 45.3% of that of Traditional Shark.

That is, Bio-Active Shark is 2.22 times more inhibitory than Traditional Shark.

CONCLUSION

The Bio-Active Shark sample is more than twice as inhibitory per gram compared with Traditional Shark with respect to angiogenesis.

Paul F Davis
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