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Study on the Bioactive Compounds of Shark (*Prionace glauca*) Cartilage and its Inflammatory Activity

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Abstract: The objective of the study was to identify the bioactive compounds of shark (Prionace glauca) cartilage and observe its antiinflammatory activity. This study was descriptive and used laboratory experiment separated into 3 phases: preparation and extraction, bioactive compound identification using Fourier Transform Infra Red (FTIR) spectroscopy, and in vivo antiinflammatory activity test using wistar rats. Results showed that IR-spectra of chondroitin and glucosamine isolated from the shark cartilage had very similar absorption peak to the standard glucosamine sulphate and chondroitin sulphate. The IR-spectra of standard chondroitin possessed strong absorption peak at the wavelength of 1627.87 cm^{-1} and 1413.72 cm^{-1} indicating that the presence of carboxyl groups with amine and sulphate. The mean percent of inflammatory inhibition was 13.40%, 4.02%, 4.15%, 3.88 % and 2.01 %, respectively, for indomethacine, shark cartilage powder,chondroitin extract, glucosamine extract and the combination of chondroitin-glucosamine extracts. The extract of chondroitin suphate had higher inflammatory activity than that of other treatments, but not significantly different from that of shark cartilage powder.
Keywords: Shark cartilage, anti-inflammatory, in vivo.

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