Fibrin wafer/disc as a biological carrier for sustained delivery of Curcumin

Salient features of the technology

- The technology is useful for delivery of curcumin, exemplified for cancer treatment (anti-tumor, anti-angiogenic).
- The wafer or disc used as biological carrier allows sustained release of the drug and shows increased bioavailability.
- Components of the wafer are non-toxic, biodegradable, bio-resorbable and of pharmacopoeia grade with minimal chances of immune response.
- The wafer or disc is cost effective compared to known chemotherapeutic drug delivery methods.
- It is hemostatic and easy to implant/adhere to the surgical site.
- Curcumin dose in the wafer is adjustable by regulating fibrin/curcumin quantity.
- The product has completed evaluation in animal model for proving safety and efficacy. The effect was comparable to the standard drug cyclophosphamide. The product was found very effective to prevent metastasis in tumors.
- Scale-up has been standardized for producing wafers with variable range of curcumin dose by increasing/ decreasing the wafer size.
- It is extramurally supported by ICMR and developed by Sree Chitra Tirunal Institute for Medical Sciences & Technology, Trivandrum.
- Patent has been filed in India and international patent filing through PCT is under process.

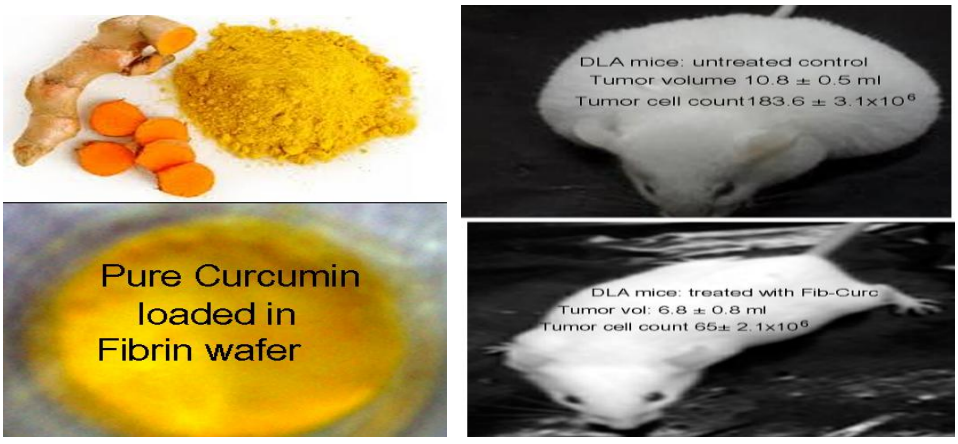

Fig. Fibrin wafer/disc for sustained delivery of Curcumin with anti-cancer effect