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Stabilization of platelet membrane by Melatonin.

Melatonin is synthesized and stored together with 5-HT in platelets (PT) dense bodies (L. Di Bella et al. *Boll. Soc. It. Biol. Sper.* 1979, LV, 318; B.J. Lemaitre et al. 2nd Colloquium EPSC, Giessen, pg. 42), whence it is released during the 2nd phase of PL aggregation by ADP or Collagen.

If MLT is added to rat PRP before ADP, only the "shape change", or the shape change plus the release reaction, or the complete aggregation curve appear, that thereafter reverse, according to the time lapse from the addition of ADP, or according to the concentration of ADP and MLT; in any case the PL aggregation shows the tendency to be reversed by MLT, whatever the aggregating substance.

At a concentration at which acetylsalicylic acid no longer inhibits the PL aggregation by Collagen, MLT at the same concentration is still in a position to reverse it.

MLT acts as if blocking the initial aggregation process, or as if arresting an aggregation process already begun but not yet too far advanced.

This PL membrane stabilizing effect is probably realized through a block of the membrane phospholipase B activity by an acetylation process, a reaction similar to that realized by acetylsalicylic acid on the same substrate, in the same conditions.