

Asoka was the bark of *Rhododendron arboreum* Nees. This was the case at all four sampling sites scattered over the island. On inquiry of several ayurvedic physicians about the use of Asoka Arishta it appeared that the drug was indicated for menstrual disorders. In a closer specification of the disorders menorrhagia and metrorrhagia were always mentioned.

On the basis of these indications pharmacological experiments were looked for in which the possible therapeutic action of the drug could be demonstrated. The test substances used in these experiments were water extracts and extracts obtained by extraction with solvents in an eluotropic sequence, from the bark of *S. asoca* as well as *R. arboreum*.

A possible oxytocic action was investigated *in vitro* on a rat uterus preparation; the result was negative. An antifibrinolytic activity was tested *in vitro* on human blood; the result was again negative. The test substances were also investigated in a hippocratic screening test for actions on the central and autonomic nervous systems; again only negative results were obtained.

At last a possible inhibition of the prostaglandin synthesis was tested. This was executed *in vitro* on a prostaglandin synthetase preparation, obtained from sheep vesicular glands. In this experiment it appeared that extracts from *S. asoca* and *R. arboreum* were able to inhibit the synthesis. In addition to that it was shown that substances from the other extract of *S. asoca* and from the ethyl acetate extracts

from *S. asoca* as well as from *R. arboreum* were able to react as substrates with the prostaglandin synthetase enzyme. The inhibition and the reaction as substrate could be an explanation for the use of Asoka Arishta in menorrhagia.

Chemical analysis of the *S. asoca* bark showed that it contained (-)-epicatechin, procyanidin B₂, 11'-deoxyprocyanidin B₂ and polymer procyanidins. The latter showed in Gel Permeation Chromatography (GPC) analysis a modulus of a tetramer. The *R. arboreum* bark contained betulinic acid, epicatechin and also polymeric procyanidins. The polymeric procyanidins, abundantly present in both barks, were able to cause an inhibition of the prostaglandin synthesis.

The two procyanidin dimers present in the *S. asoca* bark were able to react as substrates with the prostaglandin synthetase. The latter was a reaction in which oxygen was consumed.

Results were also published in the following papers:

Middelkoop TB, Labadie RP. Evaluation of Asoka Arishta. *J Ethnopharmacol* 1983;8:313-20.

Middelkoop TB, Labadie RP. Proanthocyanidins and (-)-epicatechin in the bark of *Saraca asoca* Roxb. de Wilde. *Zeitschr Naturforsch* 1985;40b:855-7.

Middelkoop TB, Labadie RP. The action of *Saraca asoca* bark on the PGH₂ synthetase enzyme of the sheep vesicular gland. *Zeitschr Naturforsch* 1985;40c:523-6.

Middelkoop TB, Labadie RP. An *in vitro* examination of bark extracts from *S. asoca* and *R. arboreum* for oxytocic activity. *Int J Crude Drug Res* (in press).

erratum

On the synergism of the cholinesterase reactivating bispyridinium aldoxime HI-6 and atropine in the treatment of organophosphate intoxications in the rat

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In the above mentioned paper (Pharm Weekbl [Sci] 1985;7:219-21) it was mentioned that Dr. Ligtenstein graduated at the Catholic University of

Nijmegen. The graduation was, however, at the State University of Leiden.