

7.2.3. Opium (7)

Opium is the dried latex extracted from the seedpods of the plant opium poppy (*Papaver somniferum*). The unripened pods are slit open for the sap to seep out which is then dried on the outer surface of the pod. The resulting latex is scraped off the pod which is yellow-brown in colour and bitter in taste. Different types of alkaloids, e.g., morphine, codeine, thebaine, and papaverine are present in this latex.

Poppy which is cultivated is not a pure strain but a cross between *Papaver somniferum* var. album and a violet-grey form. The plants are cultivated by seed sowing method in small fields in sunny conditions in the plains and valleys. The crop is altered with other crops like maize, tobacco, etc. Seeds are sown from September to April to prevent the damage of crop due to frosts, drought, and other accidents. Before sowing the seeds are mixed with 3 or 4 parts of sands. Between two plants a distance of 25cm is maintained. Branching occurs to the ground level and the plant attains the height of 50cm to 1.5m (depending on the season).

Flowering starts at the end of May and beginning of June. The 5-8 capsules present in each plant reach their full size between the months of June and July. On the capsule wall, incisions are made when they are green or showing a little yellow shade. The incision made should not penetrate the loculus; otherwise opium loss will occur, also preventing the ripening of seeds. The time of incision is also a very important factor. Incision should be made in the absence of rain, wind, and dew because they may spoil the plant exudation or latex. The incision should be across the laticiferous vessels, and these vessels are divided and anastomose throughout the phloem tissues of the capsule wall. Along the edges of incision, the latex oozes out from a large area of the capsule in the form of small drops and dries in the air. Incision is made in the afternoon while the exuded latex is scraped off early next morning using a knife or a special instrument.

For incision, different types of instruments are used depending on the geographical and cultural characteristics:

- 1) **In Yugoslavia, Bulgaria, Macedonia, and Persia:** A single horizontal incision is made equatorially around the capsule with a small sharply pointed knife. This knife is about 2-3cm long, mounted on a 8cm long wooden handle. The latex is collected in conical tins lined with poppy leaf and holding about 750gm of moist opium.
- 2) **In Persia (Iran):** The latex is scrapped off using a knife and collected on a poppy leaf or in a small bowl. The latex is then mixed and made up into 10 × 5 × 7cm rectangular brick-shaped cakes.

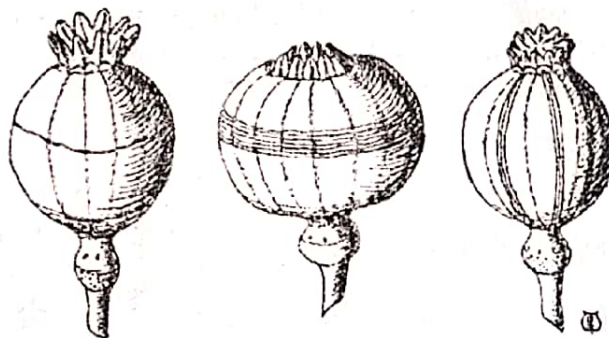


Figure 7.12: Capsules of *Papaver somniferum*, showing incisions for production of opium. From left to right – Macedonian, Turkish, and Indian

- 3) **In Turkey (Asia Minor):** A special cutter is used having 18cm long wooden handle and a flat end in which 7 small knives are embedded. The tips of these small knives project about 1-5mm so that deep incisions are not made. The cutter is drawn around the equator of the capsule making 7 parallel incisions from which the latex exudes. The incision is made repeatedly after 2-3 days and sometimes the capsules are incised thrice.

For the removal of latex, a special copper instrument is used which is like a 13cm long, 5-5cm broad, and 2cm deep small tray and has a 12cm long wooden handle. At

- a point near the handle there is a gap in the side of the tray, leaving the edge of the base exposed for a length of about 2cm. This edge is used to scrap off the partially exuded latex, which is then pushed forward into the front rounded end of the tray. The scrapings are massed into balls of various sizes, wrapped in poppy leaves and packed.
- 4) **In India:** A special instrument “nushtur” is used for incision having 3-4 small blades, separated by 3mm spaces. These blades are tied together by a cotton thread to form a cutter with the cutting teeth projecting about 2mm. The nushtur is drawn from below upwards to make a set of 3-4 vertical incisions. This is repeated on each capsule 3-4 times at intervals of 2-3 days. The collected homogeneous masses of opium are made into cubical cakes and are exported for further processing and use. (D)