In Reply:-A sincere thanks to Drs. Lai and Takrouri for supplementary information. Although it is inevitable that an article tracing the mythology and pharmacology of the alkaloids omits much more than it includes, it also affords the author and other interested readers an opportunity to pursue offshoots of the thesis. Dr. Lai’s references to the foresight of Dioscorides and Giambattista della Porta are a reassuring reminder that physicians have long yearned to provide pain relief. His mentioning of Dr. Forrer’s [1] use of atropine toxicity therapy, which, for the sake of brevity, I only touched upon, is a fascinating preview of our current efforts at trying to understand cholinoreceptors in the central nervous system. The Datura stramonium referred to by Dr. Lai has poisonous seeds and berries, with hyoscine a major constituent. Although in toxic doses it almost always ensured insensibility before death, if an extract was given in smaller amounts it had a sedative and possibly aphrodisiac effect. Toxic effects of Datura may have been responsible for the losses suffered by Mark Anthony’s army in 36 C.E., when his troops were forced to eat unfamiliar plants, and they "ate of one plant that killed them after driving them mad." [2] In more recent times, Datura stamonium achieved notoriety when some of the early settlers near Jamestown, Virginia, mistook it for spinach and narrowly avoided death. During the 1676 Jamestown, Virginia uprising known as Bacon’s Rebellion, soldiers sent to stop the rebellion unfortunately ate the berries of this plant for lack of other food and became deathly ill. The plant subsequently became known as Jamestown weed, or jimsonweed. In the 19th century, Datura was sold in the form of herbal cigarettes by the Spanish Cigarette Company, and these cigarettes were said to bring relief to those suffering from bronchial asthma and other respiratory conditions-the inhalation of an anticholinergic, just like ipratropium!

Dr. Takrouri illustrates the transition to the compassionate and therapeutic use of anesthetics. Again, for the sake of brevity, the interval between the conquest of Alexandria (640 C.E.) and the establishment of the medical school at Salerno did not receive extensive treatment by me. I did refer to Avicenna’s description of the medical use of opium, henbane, and mandrake, but that is only a small portion of the rich contributions in medical care made by Arab physicians of the time. The Saracens tried to ease the discomfort of the sick, flavoring bitter drugs with orange peels and sweets, coating unpleasant pills with sugar, and studying the lore of Hippocrates and Galen. Even The Arabian Nights contained a reference to soporific drugs: "Presently he filled a cresset with firewood, on which he strewed powdered henbane, and lighting it, went round about the tent with it till the smoke entered the nostrils of the guards, and they all fell asleep, drowned by the drug." [3]

I take great pleasure in having heard from Drs. Lai and Takrouri, and appreciate knowing of our shared interest in the richness of our heritage.
Tropane Alkaloids

They are ester alkaloids resulted from the coupling of organic acids with amino alcohol (Base).

The parent base is the “Tropane” base. H N 1 2 7 6 NH 4 3 Tropane Alkaloids are classified into:

1. Solanaceous Tropane Alkaloids
2. Erythroxylon (Coca) Alkaloids

1. Solanaceous Tropane Alkaloids

- Occurrence: Atropa, Datura, Hyoscyamus, Duboisia spp.
- Main Alkaloids are: 1-Atropine. 2- Hyoscyamine. 3. Hyoscine (Scopolamine). Tropine base N O Me N CH 2OH O O OH (-)-Hyoscyamine O Atropine Hyoscine (Scopolamine)

Hyoscine is an ester of l-tropic acid with scopoline base. Hyoscine is a syrupy liquid. Hyoscine was found to improve the relief of anxiety and sedation associated with lorazepam, but did not significantly increase lack of recall or patient acceptance.

**REFERENCES**

addition of atropine to lorazepam did not significantly alter its effects. A high frequency of agitation and restlessness in patients receiving lorazepam and hyoscine make this combination undesirable for surgical premedication. Authors: R R Pagano; J T Conner; J W Bellville; C W Graham; D Schehl; R L Katz. Related Documents: 8801603 - Effects of majonoside-r2 on pentobarbital sleep and gastric lesion in psychologically s 1