

Dr. BEAVER. What I am talking about here is the degree to which people seek this drug out and take it to get "high" and that sort of thing, the same way heroin is abused. I am pointing out that that type of abuse of the drug, from what I can tell, is relatively low, and it was predicted to be low on the basis of the work that was done back in the 1950's for very particular reasons.

I digress from my testimony because it is important to explain this. Physicians are very sensitive about this. They are almost paranoid about the issue of inducing drug dependence in their patients with the narcotics they give them. So there has been a tremendous effort over the years to develop narcotics which would not have that effect, good analgesics which do not have a narcotic-type abuse liability.

Darvon was, in part, a result of this line of work. When it was tested at Lexington, it turned out it did have the narcotic-type abuse liability, but only to a very limited degree. If you gave small doses to the post-addicts they would report it as being narcotic, but they said, "It is very weak, give me more." You give a higher dose and they say, "Yes, that feels better, but give me some more." So you give a higher dose and some subjects would have convulsions. Propoxyphene has a toxicity which discourages deliberate abuse in the sense of people taking it to get "high" and, of course, the whole focus at that time was to avoid such problems.

You see, the problem that this brings along with it is that you have a drug which may be inherently more toxic when somebody takes it in overdose than conventional narcotics. So you have the two-edged sword. You are trying to make a drug that people do not like to abuse, and you do it by making the drug more toxic, but this creates certain other kinds of problems. I am trying to bring out the history of why we are in the situation we are in at the moment.

Senator BUMPERS. Dr. Beaver, you heard Dr. Adriani's response to my question about what the dangers are and he said it is the part of propoxyphene that goes to the liver and becomes nor-propoxyphene and builds up in the liver and stays in the body and cumulatively, the danger is greater than normal analgesics.

Dr. BEAVER. This is a interesting hypothesis and I will mention this further in my testimony. I would point out we know very little about nor-propoxyphene. There are only a couple of studies in the literature on the metabolite when it is given alone to animals. We know essentially nothing about what this material does when given alone to man.

Most of the Darvon overdose deaths which I have read about in reviewing the literature can very adequately be explained simply on the basis that this drug is a narcotic and produces narcotic depression and coma; produces convulsions which makes it harder to treat the overdose and the patient then dies.

The nor-propoxyphene matter is something that has recently come up and represents an interesting pharmacological lead that may, in fact, account for some of the aspects of the poisoning that we have not been able to account for. But one must make the distinction between something which is well established scientifically, in fact, and something that is just an interesting pharmacological lead.

Senator HATCH. Doctor, it is my understanding people are not dying from propoxyphene per se, but from ingesting overdoses of the drug