Editorial

The Opioid Epidemic: Can We Reverse The Historical Trend?

History and Regulation

Opium derived from the condensed juice of the poppy, Papaver Somniferum, has been used as an analgesic, euphoric, and soporific for centuries. The use of opium goes back 6000 years to China. It was initially cultivated in 3400 B.C. in Mesopotamia, and has been used therapeutically and recreationally ever since. In fact, opium was available during the time of Hippocrates, the father of medicine (circa 470-370 B.C.). In 1660 A.D., the English physician, Thomas Sydenham, compounded an opium tincture, which he called Laudanum. This was considered the medicinal “cure all” for most ailments. Numerous scientists have experimented since then by mixing opium with other agents including whiskey, rum, brandy, ether, and chloroform. Laudanum is now virtually extinct in the U.S., though still can be obtained in a number of European countries.

The two opium wars in the 19th century between England and China were fought over trade disagreements. The English had an insatiable appetite for tea and the private traders attempted to use opium obtained from India as the medium of exchange rather than the more precious gold and silver to obtain their favorite blend. Both wars were eventually won by the British resulting in Hong Kong and Kowloon being ceded to England.

Many derivatives of opium some natural and some synthetic evolved over the past two centuries including morphine, oxycodeone, hydrocodone, codeine, meperidine, and also fentanyl and its very potent analogues. The term opiate was used to describe a drug with morphine-like effects derived from opium. The term opioid was originally designed to describe synthetic narcotics resembling opiates. Now the two words are used interchangeably. The analgesic and euphoric benefits were the prime reasons the drugs enjoyed increasing popularity. Unfortunately, the addictive properties of opium have created a societal problem that has led to significant behavioral and criminal activity as addicts attempt to satisfy their opioid appetite by any means, legal or illegal. In the United States (US), it became widely popular in homeopathic medicines and used by soldiers returning from battle (“soldier’s disease” following the US Civil War) as well as various historical luminaries. For example, in the late 1800s, numerous notables became addicted, including Charles Dickens, Edgar Allan Poe, Dr. William Halsted, Mary Todd Lincoln and Samuel Coleridge.

As problems related to the drug became more visible, the regulation of opioids (e.g., opium, morphine and heroin) gained traction in the early 20th century. The Pure Food and Drug Act (1906) and the Harrison Narcotic Act (1914) required labeling and restricted the manufacture and distribution of opioids in the U.S. Paregoric (camphorated tincture of opium) was available in the US without a prescription until 1970 and was used to treat diarrhea and cough. Resourceful addicts modified the product to allow intravenous use, frequently with contaminated needles resulting in inguinal, arm and neck abscesses.

Compassionate treatment

There has been never a controversy when large doses of opioids were used to treat terminally ill patients, whereas the use of prescribed opioids for non-malignant pain was relatively infrequent in the mid and late 20th century. In the US, State Medical Boards, empowered with enormous influence, adhered to the philosophy that “There was no indication to treat chronic non-malignant pain with opioids”. Physicians were threatened with license suspension and censorship when over-prescribing was perceived. The intimidation of physicians prevented them from properly treating even acute and subacute pain resulting in unnecessary suffering by their patients. This trend changed slowly, in part due to a 1986 treatise by two renowned pain management physicians. They concluded, “Opioid therapy can be a safe and humane alternative in patients with intractable, nonmalignant pain” [1]. Although their study only included 38 patients, it had a major impact on how chronic pain was viewed and treated in the US.
Prescribed opioids eventually became a commonly accepted and ethical form of pain management. Pain clinics owned and staffed by former anesthesiologists and physiatrists became widespread, and the opioid dike was opened wide. The social stigma of taking narcotics under medical supervision was largely removed when the perceived intent was to treat pain and suffering in a humane manner designed to improve the quality of life. Treatment of pain has always been considered the “holy grail” of compassionate medical care and few medications were more effective in pain management. The balance between compassionate care and long term consequences of use is often a delicate clinical scale to balance.

The current opioid epidemic

For a constellation of reasons, starting in the late 1990s, the number of opioid prescriptions in the United States skyrocketed and has increased ever since. Prescribed and non-prescribed opioids resulted in greater than 50,000 accidental deaths in 2017 [2]. The problem is frequently exacerbated as overdose victims who also consume other depressant drugs such as benzodiazepines and alcohol. This synergistic interaction increases apnea, produces profound sedation, hypotension and even coma, which ultimately contributes to their demise. The United States has less than 5 percent of the world population, yet use greater than 85 percent of the available legitimate opioids. Tolerance and dependence to opioids develops relatively rapidly after leading to escalating doses and aversive withdrawal symptoms. Once addicted, patients will use all means to sustain their habit including forging prescriptions, buying and selling street drugs, doctor shopping with several providers, using poly-pharmacies, and getting drugs from pharmacies without a prescription and through many county addiction service agencies for families with an at-risk member. Statewide pharmacy databases are now in vogue. Doctors in most states are now required to query the database before writing an initial opioid prescription. Narcan is available in most state pharmacies without a prescription and through many county addiction service agencies for families with an at-risk member. CME training for physicians who prescribe opioids will soon be mandatory in most states.

Finding a balance

Addictive behavior will always be with us. Our motivation should be to treat patients in a kind and caring manner without burdening them with a future problem of addiction that may supersede and be more devastating than the original diagnosis. We still have a chance to slow the “opioid train” that has left the station. As physicians we are stakeholders in the outcome of this problem and should join in a cooperative effort to provide compassion and inherent reasonableness, monitor and be open to alternative treatments in the best interest our patients.

Acknowledgment

Donald J. Schroeder, M.D., is a board certified Orthopaedic Surgeon in Eugene, Oregon. He is past president of the Lane County Medical Society, past president of the Oregon Medical Association and served as an American Medical Association delegate representing Oregon for fifteen years. He is a fellow of the American Academy of Orthopaedic Surgeons.

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