VIEWPOINT

Steroid Shots and the Culture of Instant Gratification

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The time is 6 PM on a Friday. As you leave your workplace, the head cold that you have neglected all week is now declaring itself a priority. Fatigue, nasal congestion, and a feeling of pressure in your forehead are mounting and only transiently relieved by an over-the-counter decongestant. Fearing these symptoms may become intolerable during the oncoming weekend, you head for a nearby urgent care facility. There a clinician validates your suspicion of an acute upper respiratory tract infection (URTI) and orders the treatment: a corticosteroid shot. Within moments of receiving the intramuscular injection your congestion wanes, the headache vanishes, and your energy level skyrockets. Adrenaline flowing, you exit the clinic and head homeward, fortified and grateful.

If this scenario rings with familiarity, you are likely among the hundreds of thousands in the United States who are treated with a steroid shot for acute URTIs every year.[1] Corticosteroid shots have ranked highly among the offerings of clinical medicine for several decades. They work rapidly, are inexpensive, and cover a multitude of disease processes, assailing inflammation wherever it lurks. In the popular consciousness, getting a shot is nearly synonymous with visiting a physician.

Except for one inconvenient reality: The effects of steroid shots on acute URTIs are largely unknown. Widespread use of these drugs belies the scant published evidence that they have any effect at all on the natural courses of acute sinusitis, pharyngitis, or the common cold.[2] What is understood is that even short-term use of systemic steroids carries the potential for troubling and sometimes dire adverse effects, including cataracts, psychosis, immunodeficiency, thromboembolism, and avascular necrosis of the hip.[3] Acute symptomatic relief notwithstanding, the balance of efficacy vs toxicity remains speculative. Yet the consumers of health care—the public—may be so allured by the prospect of a quick fix that they disregard any ramifications for overall well-being.

Instant gratification is the watchword for our modern society. Streaming digital services, social media relationships, next-day package delivery, electronic communications, and virtual telemedicine are all manifestations of the prevailing on-demand culture. As the tempo of our lives has increased, it is unsurprising that we desire our health care solutions to follow apace. Why wait for relief from a pill when a shot will get the job done much quicker? Why delay gratification when the instant variety is so much more, well, gratifying?

If the offering of steroid shots serves anyone, it is certainly those who wield the syringe. Health care professionals are subject to the very human bias of preferring action over inaction. Administering a shot at the point of care fulfills a primary gain from which no clinician is immune. The specter of secondary gain cannot be ruled out either. Even today, some pharmaceutical company advertisements appeal to the financial sensibilities of physicians under the guise of gratifying their patients with symptomatic relief. For the clinician who is attentive to reputation, word of mouth from a satisfied patient is a sanctifiable commodity.

The procedure code tied to performance of an intramuscular injection—and ultimately reimbursement to the clinician—may also be nontrivial in the decision to administer a shot. Glaringly, there is neither a code nor reimbursement for writing a prescription. This dichotomy stems from the US health care payment system in all its sometimes-dubious complexity. Discerning the true effect of this incentive on patient care would entail headlong descent into an economic and ethical rabbit hole.

This point of view is not to imply that all steroid shots are unjustified—far from it. Chronic conditions from asthma to all manner of rheumatologic ailments reliably respond to systemic steroids, which constitute a mainstay of long-term management. But such usage is in contrast to the management of acute URTIs, for which the use of both oral and intramuscular steroids remains unsupported by evidence. And whenever both routes of administration are feasible, the steroid shot gets the nod because it confers the visceral satisfaction of prompt symptom relief, even if it does little to alter the course of the disease. Patient satisfaction, on the other hand, often experiences an upward trajectory.[4]

The classic book, *Kill as Few Patients as Possible*,[5] contains an essay titled "Give a Patient Your Best Shot," in which the pseudonymous Oscar London, MD, writes: "The results of an intra-articular [steroid] injection are often so spectacular that I have to restrain the patient from asking for another shot too soon. Otherwise I might end up with a waiting room crowded with moon-faced cortisone junkies. These moonies, as it were, become fanatically devoted to their shot-happy doctors."[5(p19)]

Although Dr London's writing is satirical, the sentiment is founded in several decades of internal medicine practice. Couched within the observation of inevitable patient satisfaction is the insidious potential for adverse effects borne by the exogenous corticosteroid. More recent reports have raised warnings that the detrimental effects of steroids are dose dependent and may be cumulative.[3] And unlike intra-articular injections for arthritis, steroid shots do not enjoy labeling by the US Food and Drug Administration for the treatment of acute URTIs.

Recent evidence indicates that steroid shots beget more steroid shots. In a study of one large health care system, adult patients who received an intramuscular steroid injection for acute URTI were many times more likely to return with the same diagnosis within 60 days for a second visit, which usually resulted in a second shot.[6] Conversely, patients who

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did not receive a shot initially were unlikely to return for a second visit. These tendencies are demonstrable across specialties, although they are most prominent in internal medicine, family medicine, urgent care, and otolaryngology.[6,7] But why? Plausibly, an individual returning for a second visit in a short time frame would inform the new treating clinician about the prior success with the steroid shot, thus presenting an easy opportunity for the clinician to oblige the patient with another shot and create satisfaction with the encounter. The fact that a patient would return at all for the same diagnosis hints at the futility of steroid shots in resolving the condition that led to the encounter in the first place. Yet in the modern societal milieu, this skepticism probably gains little traction. More likely, even short-lived relief generates enough confidence in the treatment to prompt a return for another dose of instant gratification. The intrinsic, euphoric properties of parenteral steroids have a self-perpetuating effect that supersedes the lack of a clear net benefit.

Contemporary clinicians are called upon to align their decisions with a patient-centered view of costs vs benefits. In the case of steroid shots, benefits include short-term symptomatic relief, patient and clinician satisfaction, and modest revenue. Costs include the potential for acute and delayed adverse effects, imprudent use of health care resources, and cultivation of false hope among the ill. Resolving the optimal use of steroid shots for acute URTIs will likely require equal parts of thoughtful clinical research and philosophical reckoning.

The culture of instant gratification is with us for the long haul. Whether we regard that culture with acceptance or resentment, we must uphold the principles of beneficence and nonmaleficence by presenting our patients with unbiased options and equipping them to construct their own rational decisions. We can and should practice our craft with intention to minimize the allure of instant gratification and maximize the benefits of cost-effective treatment and long-term health.

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