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# Reply to the Letter to the Editor

# Reply to the Letter to the Editor: Editorial: Do Orthopaedic Surgeons Belong on the Sidelines at American Football Games?

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My coauthors and I thank Drs. Rodeo, Taylor, Kinderknecht, and Warren for taking the time to read the editorial [6] and respond so thoughtfully. We normally do not reply to letters to the editor about editorials in *Clinical Orthopaedics and Related Research®*, but in this case, we feel as the letter-writers do: The topic is just too important to let it pass without a full dialogue.

(RE: Leopold SS, Dobbs MB, Gebhardt MC, Gioe TJ, Rimnac CM, Wongworawat MD. Editorial: Do orthopaedic surgeons belong on the sidelines at American football games? *Clin Orthop Relat Res.* [Published online ahead of print September 5, 2017]. DOI: 10.1007/s11999-017-5483-6.)
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We honor the commitment Dr. Rodeo and his colleagues make every week (and weekend), and we honor the ways they express it: With their time in service to athletes, with the life-improving research they've shared with us over the course of their careers, and with the obvious intention and integrity that they bring to the tasks they perform. Like Dr. Rodeo and colleagues, we believe our first responsibility is to take good care of athletes. We differ in terms of how we believe orthopaedic surgeons should discharge that responsibility.

The letter touched on six main themes (which we introduce with italicized quotes drawn from it), and I'd like to respond briefly to each:

> *1. " … we believe it is our responsibility to care for these athletes and work with others to improve the sport's safety and reduce the risk of concussions and chronic traumatic encephalopathy (CTE) … "*

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This is a critically important point. Thus far, there is no evidence that any of our interventions has or will reduce the risk of CTE in football. The long-term benefits of the interventions surgeons hope may mitigate risk—better helmets, no-contact practices, more-stringent return-to-play guidelines, and others—must be considered speculative. It will take another generation of men's lives to see whether those interventions will prove effective. What if we are wrong, and those changes do not decrease or eliminate the risk of disabling CTE? Is that really worth it for a game? I believe it is not.

> *2. "Concussion is not a problem unique to football, a message increasingly lost on popular media and even within our own medical journals … Are we as orthopaedic surgeons also going to withdraw our support and coverage of these other sports?"*

The slippery-slope argument may not apply here. Right, concussions do happen in other sports. However, as stated in the editorial, the combination of the frequency of concussions in football (it's either at the top or near the top in all lists in terms of

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frequency) multiplied by the number of athletes who play football puts that sport in the crosshairs. In addition, there now is this troubling dataset from the *Journal of the American Medical Association* [8]; how can we look away from data like those? The answer to the question Dr. Rodeo and colleagues are asking here is "yes" in the sense that if proof were to emerge that a substantial proportion of hockey players were to turn up with CTE, and 25% of those with mild CTE had died by suicide, we certainly would write something similar about hockey. However, that has not happened and happily, it's not likely to. These other sports are contact sports; football is a collision sport, and that difference is important. Football is unique on the list of sports being discussed because the rules of football create a situation in which almost every play ends with someone being violently tackled to the ground. Because of this, as Dr. Rodeo and colleagues must know, subconcussive impacts are much more frequent in football than they are in those other sports, and those subconcussive impacts may account for the differences among retirees from the sports we are discussing. In no other sport (with the possible exception of the combat sports like boxing) do we see so many stories of troubled people doing troubled things after their careers are over, and then having those gestures being linked to the diagnosis of CTE. We just don't see that among ex-cheerleaders and ex-gymnasts (those sports also generate concussions), perhaps because of the difference in the numbers of subconcussive impacts between football and those other sports. But in response to the point raised by Rodeo and colleagues in this question, if a high proportion of former athletes in those other sports were shown to have CTE, we surely would write about it. For the moment, the bright light is on football because the data suggest that sport has a serious problem.

> *3. "We fundamentally disagree that orthopedists should withdraw their support from sideline coverage to find solace in boycott. You are either 'part of the problem or part of the solution.' The Hippocratic Oath requires us to uphold specific ethical and moral standards, and we believe that a fundamental part of this is to not abandon our patients."*

This is indeed the crux of the matter, and it comes down to how one conceives of "the solution." I understand (and my coauthors and I said in the editorial) that each surgeon likely will see this differently. But I see our participation as facilitating the continued performance of an activity that the data suggest probably should end. I believe that if orthopaedic surgeons as a group were to stop supporting football with our professional presence, it would be difficult for the sport to continue, if for no other reason than the question "why are all these doctors walking away" would have to be answered, both in athletes' and fans' minds, and probably in the courts (the National Football League [NFL] has agreed to a USD 1 billion settlement with retired players over concussion-related brain injuries from football [2, 4], and that case seems unlikely to be the last [7]).

I do not advocate patient abandonment in any sense of the term. Injured players will still receive care, whether in orthopaedic surgeons' offices, urgent care centers, or operating rooms. Surgeons don't decide to provide or withhold care based on how someone gets injured; we care for the person with the injury regardless. But I believe that surgeons' direct participation with football—on the sidelines, by facilitating the sport with preseason physicals, and financial and branding relationships with teams—allows the sport to continue, which puts more athletes at risk for permanent, disabling brain injuries. I can't justify that.

> *4. "… the orthopaedic surgeon is often the head team physician, and thus plays a leadership role in the overall medical team."*

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Unequivocally true, but I believe this benefit does not come close to justifying the risks we are discussing here.

> *5. "As sideline physicians, orthopaedic surgeons are in a unique and even privileged position to serve as role models for these young athlete …we should not discount the positive effect that team physicians can have in the development of these young individuals … This provides us a unique opportunity to highlight our specialty."*

Orthopaedic surgeons and team physicians do hold privileged positions. This makes it even more important for them to advocate for the safety of athletes. It is worth noting, though, that at the professional level, a large proportion of players feel that team physicians do not have players' interests at heart [5, 9]. Given that the NFL has been perhaps less-than-candid about the risk of CTE in the past [3], and physicians have been integral to the league's pronouncements on this topic all along, this comes as little surprise. Even physicians identified with the NFL have identified the league's own Mild Traumatic Brain Injury Committee as having an "inherent conflict of interest" [1]. Orthopaedic surgeons can and should remain as team physicians in other sports, and through the contacts we have with athletes who play those sports, we can make lifelong relationships, model professionalism and integrity, and highlight our specialty. We don't need to support football to achieve any of these goals.

> *6. "Having the opportunity to witness the injury first hand and then immediately evaluate the athlete provides insights into injury that could not be gained in any other way."*

Orthopaedic surgeons manage to deliver good care to victims of automobile accidents without riding in ambulances. We care for many more athletes whose injuries we did not see firsthand than those we have observed. While there is a benefit to seeing the injury mechanism from the sidelines, I think that any benefits to the care of patients with on-field knee or shoulder injuries are far more than offset by the risk of neurocognitive impairment and death from CTE that will continue if we remain on the sidelines. If we were to distance ourselves from this sport, this likely would change. It seems to me that the status quo is inconsistent with our first mission of caring for athletes.

But my coauthors on the editorial and I accept that others—perhaps many others—may still see it differently. And we are grateful to Drs. Rodeo, Taylor, Kinderknecht, and Warren for the opportunity to have this important dialogue. Talking this over, whether in letters to the editor or between cases in the operating room, is good for our specialty and it is good for the athletes we care for.

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