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Fear and Loathing at the MOC

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COMMENTARY

Fear and Loathing at the MOC

Here I am proctoring the American Board of Radiology Certificate of Added Qualification Maintenance of Certificate computer-based board examinations—again. Bored (not board) to tears, I sit in a dark room with 70 computer carrels in Tampa, each housing a diplomate who does not want to be here. I swore 6 months ago that I'd never do this again. I would like to tell you that I'm doing this for the good of radiology, but the truth is I'm doing it for the cash: $100 a day plus expenses ($7.00 for a diet soda and a sandwich; $3.00 for a gallon of gas to drive to and from the test center). I am an unbelievable greedhead. I brought my laptop, and I'm going to use it. While these candidates suffer, slaving away on the computers in the dark, I feel like I am channeling the ghost of Hunter Thompson.

I want right now to ask if anyone wants to take over this fantastically remunerative and challenging job next summer. Call me, or else I might have to hire a headhunter.

If you haven't already had this test experience, at either the center here in Tampa, or the others in Chicago and Tucson, I'm going to try to do it justice and sketch it out for you.

The American Board of Radiology (ABR) instituted Certificates of Added Qualification (CAQ) examinations in neuroradiology, pediatric radiology, and vascular and interventional radiology at the end of the last century. Taking and passing these oral examinations in Louisville was tough, but all of the old guys like me figured that was the last test we'd ever have to take, capping the thousands of achievement tests we'd taken our entire lives. Wrong. These CAQs needed to be reupped every 10 years, and the retests are just now beginning to come due. I took mine last year—and passed it, thank you very much—but many of you are just now facing this new right of passage, or irritant, or obstacle; whatever you think is the most accurate description.

The Tampa center is high-tech, and a game of golf or a side trip to the beach is always a nice carrot to go along with the stick that is the test itself, as long as it isn't too hot (summer session). It is housed in an office building directly adjacent to a major, nice, upscale hotel (not the "Executive West") located less than 10 minutes from the Tampa International Airport (It's one of the nation's best, really. Even people not from Tampa agree on that). The test center itself is owned and operated by the American Board of Pathology (ABP), for administering their own specialty tests, and they sub it out to other medical specialties, like radiology. This has been a sound investment for the ABP. Why didn't we think of that? Oh wait, I just learned that the ABR does own the center in Tucson, but I don't know if they rent it out to others. In Chicago, the CAQ/MOC examinations are administered in a center belonging to the American Board of Neurology and Psychiatry.

The candidates, or "diplomates," as the ABR prefers to call them, line up in the hallway outside of the computer test center room well before the appointed starting time of 7:30 AM for the morning session. Radiologists are, if nothing else, punctual and compulsive. We can't help it, actually. These folks are all just a little bit worried, coupled with a little ticked off that they have to be here in the first place. Several invariably mention the perceived outrageous cost of the examination. One or 2 are very laid back and mellow; they may be strung out. Several have had too much coffee; they are easy to spot and resemble protons in nonisotropic random motion, bouncing off the walls. Everyone wants to get started right away, if not sooner, but there are procedures that must be followed and one candidate is invariably late and the choice is to delay everyone's start, thus risking bodily harm, or start without them. We wisely choose to start without the tardy individual who is very upset when he or she wanders in, which is invariably immediately after we do start. We check a photo ID for each individual before admission to the computer room, but so far don't have to perform body cavity searches. All cell phones, luggage, and food or drink must be left in an anteroom. People are very unhappy to be separated from their phones or BlackBerrys by even a few yards. Some become violent, others sulk.

The ABR has very strict rules stating that we can't start the practice test until exactly 7:45 AM—the late person arrives between 7:46 AM and 7:53 AM. The practice run takes most people 6–8 minutes, tops, but there is always one who just has to take the full 15 minutes, and this drives the rest of them nuts. At least one other individual, whom I have scared badly by my sonorous reading of "The Rules of the ABR Examination," *always* at this point must run outside for one last, desperate, bathroom break. (Diplomates are permitted bathroom breaks once the test starts in earnest; the ABR doesn't require Foley catheters. Yet.)

Before any bodily harm befalls anyone, the practice test times out, finally, and the real test is set to begin, at promptly 8:00 AM. The ABR is very strict on these timetables, and it's a good thing, because by the end of the whole 4-hour examination period I really, really want to get out of here even more than those being tested. At this point, I must read them their Miranda Rights from a still another prepared text of the ABR, which takes no more than 5 minutes, but makes it seem as if the ABR does not in fact *trust* these diplomates, because the warnings include dire consequences in the event of cheating, drinking, or eating in the computer room (to protect the hardware), or getting up to go to the bathroom at the same time as another person of the same sex. It's a little like third grade and I'm the hall monitor.

Because I am composing on my laptop while actually proctoring the examination (we have a very good group this morning, with minimal problems, and it is dark in the room), I am able to make piquant observations and actually remember them long enough to set them down on the computer. I need to check my amygdyla and hippocampus later tonight. I am, actually, a little disappointed with this group of diplomates because I have not been able to spot yet the person who will be the last one out of the room, who uses every second of the 4 allotted hours to finish. There is no Vegas line on this, and no over/under. They probably all will finish around the 3-hour range or earlier. We shall see. In general, and according only to my personal estimate having proctored (rhymes with "proctology") these examinations for 2 years now (14 of these 4-hour sessions overall), I can expect that around a third will be done near the 2-hour mark, another third will be out of here by 3 hours, and no more than 2 or 3 will be here when the test times out automatically at 4 hours. It's also fun to try and

predict the individual who will finish first. That's a lot harder to predict. I have had people ask when they finish early if they were the first; I sometimes say "yes" to more than one of them as they leave because I'm empathetic and it seems so important somehow to their egos.

I also have yet, in this session, to have the inevitable complaint that these test questions do, in fact, stink, and the complainer would be happy to supply us with the correct answers to the inappropriate or just plain poor-quality questions. I don't know for sure, but I'd bet those guys are usually going to be the ones to not pass the test, somehow.

Correction: I just now received that specific complaint. Now I can relax. The remedy I offer the complaining individual is to have them document their concerns, in pencil (no pens allowed, please, and no scissors or belts in the test environment) on the feedback sheet, which is guaranteed to be eyeballed by the authorities after the test is in the can. I hope this is actually true. I have seen several pages of specifics handed in by one person in a past session, which was somewhat of a record. Most diplomates are content to get out of here as fast as possible and are just glad to get it over with. Most of these folks will pass this test anyway and forget about it for another 10 years.

Although I can only personally vouch for the neuroradiology COQ/MOC, I thought the test itself was pretty well done, fair and balanced, and actually a learning experience. This is because when I went home and looked up some of the things I saw on the test, I found I was sometimes wrong (yes, it happens) and I actually learned the right answer. Belatedly, but I still passed.

By now you have undoubtedly heard about the infamous "true or false" questions, right? When I took the test as one of the first responders 2 years ago, neither the ABR as tester nor I as tested knew these questions constituted a minefield that would continue to be a danger for future diplomates even when warned specifically to look out for them. In brief, "T or F" questions typically have 4 or 5 choices as answers, each with a "T" and an "F" box in front. It is honest-to-goodness complete human nature to only bother the check off the "T's" and leave the "F's" blank. You cannot help yourself. The only problem is that an "F" left unchecked will be counted as incorrect. I didn't figure that out until halfway through 42 questions when I first took the test. To compound the problem, many of these are "blocked" so that once they are left, the test-taker can go back and look at them, and scream, but cannot change them in any way. Bummer, but I still passed the examination (must have done really well on the spine questions). Word to the wise, but I'll bet you're still going to do this to at least one of these questions when you take the test.

All right, now. It's almost over for this session and I only have 2 more sessions to go tomorrow. The CAQ is obviously an important certification to have, and to maintain; it may be even more important in the future, if hospital privileges or reimbursements ever require them. As much of a pain as all this rigmarole is, you should support it and go get tested. It has actually been very heartening to see some of the giants of neuroradiology, in their seventh and eighth decades, being tortured at the test centers along with the younger generation. Since I am one of those old guys, I guess I'm glad I set an example, griping and moaning all the way. I'm also real glad I actually did pass the test, given how much I screwed up the true or false questions.

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COMMENTARY

Recommendations for Anticoagulated Patients Undergoing Image-Guided Spinal Procedures

Anticoagulated patients often need image-guided spinal procedures for CSF harvest, myelography, vertebroplasty, vertebral biopsies, or epidural injections. The risk of spinal hematoma is increased in anticoagulated patients who undergo lumbar puncture or neuraxial anesthesia. Any procedure involving needle manipulation or biopsy with potential transgression of the subarachnoid, subdural, or epidural vasculature, however, likely carries a similar risk. This risk is increased, often substantially, by the use of multiple anticoagulants and the intensity of anticoagulation. It is crucial that radiologists who perform spinal procedures be familiar with the common anticoagulant and antiplatelet medications.

Radiologists are increasingly being asked to provide fluoroscopically assisted access to the neuraxial system. Whether a routine lumbar puncture, epidural steroid injection, spinal biopsy, or the more unusual C1–2 cervical puncture, there is the potential for bleeding complications. Most of the case reports involving spinal hematomas following lumbar puncture, high cervical myelogram, and epidural injection (as well as those related to neuraxial anesthesia) are reported in the anesthesia and surgical literature.[1-4] Large series consistently note that the risk of spinal hematoma is potentiated by the concomitant administration of anticoagulant and/or antiplatelet therapy and difficult and/or traumatic spinal instrumentation.[5,6] Neurologic compromise typically presents as a sensory or motor deficit or bowel/bladder dysfunction, not severe radicular back pain. Because of delays in the diagnosis, neurologic recovery is poor in most cases. Thus, radiologists must be aware of the risk factors and diagnosis of spinal bleeding.

Much of the information related to postprocedure spinal hematomas in anticoagulated patients is derived from cases of spinal hematoma associated with neuraxial anesthesia and anesthesia. Formal recommendations have been put forth by the American Society of Regional Anesthesia and Pain Medicine, but correlative recommendations by the radiology community are currently not available.[7] In hopes of facilitating the management of patients presenting to radiologists for spinal procedures in the setting of anticoagulant or antiplatelet therapy, we offer a focused, readily accessible set of guidelines for performing spinal procedures on anticoagulated patients.

Discussion

Literature is available regarding recommendations for managing patients with medication-induced coagulopathies and is reviewed below (Table). Patients typically receive these medications for chronic antithrombotic therapy in the prevention

Antiplatelet Therapy

The antiplatelet medications include a diverse group of agents in terms of their effects on platelet function; therefore, it is not possible to extrapolate between the various groups of drugs regarding spinal procedures. These agents include NSAIDs, thienopyridine derivatives, and GP IIb/IIIa antagonists.

NSAIDs

The use of NSAIDs alone does not seem to increase the risk of spinal hematoma from spinal puncture. At this time, there do not seem to be specific concerns related to timing of spinal puncture in relation to the dosing of NSAIDs or postprocedure monitoring.[18,19]

Thienopyridine Derivatives

This class of antiplatelet agents works by inhibiting adenosine diphosphate–induced platelet aggregation. These drugs affect both primary and secondary platelet aggregation as well as platelet-fibrinogen binding.[20] The agents in this class include clopidogrel (Plavix) and ticlopidine (Ticlid). The patient should be carefully assessed for other factors that might lead to bleeding such as easy bruising/bleeding, female sex, and increased age.[7] The addition of other medications affecting different clotting mechanisms will likely increase the chance for spinal hematoma.

GP IIb/IIIa–Receptor Antagonists

These agents affect platelet-fibrinogen and platelet–von Willebrand factor binding to inhibit platelet aggregation. These medications are often given concomitantly with aspirin and heparin. This class of antiplatelet drugs includes abciximab (ReoPro), eptifibatide (Integrilin), and tirofiban (Aggrastat). Normal platelet aggregation is usually achieved 8 hours after discontinuation of tirofiban and eptifibatide and 24–48 hours after discontinuing abciximab.

The true risk of spinal hematoma in patients on thienopyridine derivatives or GP IIb/IIIa antagonists is unknown. Management is based on labeling precautions and prior experience. The concomitant use of aspirin with these agents may increase the risk for spinal hematoma. The GP IIa/IIIb antagonists have a profound effect on platelet aggregation and spinal puncture should be avoided until platelet function has recovered.[21] Of note, these agents are contraindicated within 4 weeks of surgery. There is not a definitive test, including bleeding time, that can guide antiplatelet therapy.

Conclusion

The increased vigilance over venous thromboembolism and introduction of more efficacious antiplatelet agents has introduced a degree of complexity into the performance of spinal procedures. The presence and continued evolution of antiplatelet agents, various heparin derivatives and thrombolytic therapy requires a thorough investigation of a patient's medication history. Continued surveillance of the literature will be necessary to stay abreast of the newer agents that are sure to appear, as well as any changes in the recommendations regarding agents currently in use. The guidelines referenced in the table and can be accessed on-line at www.asra.com.

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