unit-acquired bloodstream infections: differences in risk factors and outcome. Anesth Analg 2008;106:523–9
2. Samonis G, Kofteridis DP, Saloustros E, Giannopoulou KP, Ntziora F, Christidou A, Maraki S, Falagas ME. *Candida albicans* versus non-*albicans* bloodstream infection in patients in a tertiary hospital: an analysis of microbiological data. Scand J Infect Dis 2008;40:414–9
3. Dimopoulos G, Karabinis A, Samonis G, Falagas ME. Candidemia in immunocompromised and immunocompetent critically ill patients: a prospective comparative study. Eur J Clin Microbiol Infect Dis 2007;26:377–84
4. Falagas ME, Apostolou KE, Pappas VD. Attributable mortality of candidemia: a systematic review of matched cohort and case-control studies. Eur J Clin Microbiol Infect Dis 2006;25:419–25
5. Ostrosky-Zeichner L, Rex JH, Pappas PG, Hamill RG, Larsen RA, Horowitz HW, Powderly WG, Hyslop N, Kauffman CA, Cleary J, Manjino JE, Lee J. Antifungal susceptibility survey of 2000 bloodstream *Candida* isolates in the United States. Antimicrob Agents Chemother 2003;47:3149–154
6. Blot S, Janssens R, Claeys G, Hoste E, Buyle F, De Waele JJ, Peleman R, Vogelaers D, Vandewoude K. Effect of fluconazole consumption on long-term trends in candidal ecology. J Antimicrob Chemother 2006;58:474–7
7. Brion LP, Uko SE, Goldman DL. Risk of resistance associated with fluconazole prophylaxis: systematic review. J Infect 2007;54:521–9
8. Snydman DR. Shifting patterns in the epidemiology of nosocomial *Candida* infections. Chest 2003;123:500S–503S

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Thirty-five Franklin Size Double Lumen Tube May Not Be Suitable for Tall Patients

To the Editor:

A recent study by Amar et al. concluded that the use of smaller than conventionally sized double lumen tubes (DLTs) was not associated with any differences in clinical intraoperative outcomes including transient hypoxemia. However, the authors used DLTs from one manufacturer (Sheridan, Telefex Medical, Research Triangle Park, NC).[1] Partridge et al. have shown that same size DLTs from different manufacturers have different margins of safety [2,3] with tubes manufactured by Sheridan having a greater margin of safety compared to those from other manufacturers.

Thus, we suggest that extrapolating these results to DLTs other than those manufactured by Sheridan may result in more episodes of intraoperative tube malposition and hypoxemia. Although the ready availability of fiberoptic brochoscope to adjust for DLT displacement or malposition during surgery is considered routine care, too frequent adjustments by the fiberoptic brochoscope intraoperatively could be both cumbersome and may not be possible in all cases.

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REFERENCES

1. Amar D, Desiderio DP, Heerdt PM, Kolker AC, Zhang H, Thaler HT. Practice patterns in choice of left double lumen tube size for thoracic surgery. Anesth Analg 2008;106:379–83
2. Partridge L, Russell WJ. The margin of safety of a left double lumen tracheobronchial tube depends on the length of the bronchial cuff and tip Anaesthesia. Intensive care 2006;34:618–20
3. Benumof JL, Partridge BL, Salvatierra C, Keating J. Margin of safety in positioning modern double lumen endotracheal tubes. Anesthesiology 1987;67:729–38

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In Response:

Although we agree that the paper by Partridge and Russell[1] points to inter- and intramanufacturer variability of double lumen tubes (DLT) cuff to tip distances, they also did not provide any statistical comparisons between the sizes among the manufacturers to substantiate that smaller DLT by Sheridan are safer. Thus, and as pointed out by Punj et al.[2] our conclusions were based on use of DLT from a single manufacturer. In addition, and as stated in our paper, we view fiberoptic confirmation and intermittent verification of DLT position regardless of manufacturer as an integral part of the anesthetic management.

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REFERENCES

1. Partridge L, Russell WJ. The margin of safety of a left double-lumen tracheobronchial tube depends on the length of the bronchial cuff and tip. Anaesth Intensive Care 2006;34:618–20
2. Punj J, Darlong V, Pandey R, Chandralekha. Thirty-five Franklin size double lumen tube may not be suitable for tall patients. Anesth Analg 2007;2092

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Intraarticular Tramadol or "Hot Chili Peppers"?

To the Editor:

Fans of tramadol should thank Zeidan et al. for their recent report,[1] showing that tramadol 100 mg, used as an adjuvant to bupivacaine and injected intraarticularly, provides extended analgesia after arthroscopic knee surgery. Our concern is, however, the safety of tramadol administration into the knee joint. It has been found that tramadol can lead to local release of various peptides that act on neighboring tissues, producing vasodilation, immunomodulation, cytokine and mediator release.[2] These effects have been attributed to activation of the transient receptor potential vanilloid-1 ("the capsaicin receptor"), which can also be activated by hot chili peppers[2] and is supported by human studies, showing that local tramadol, can result in skin erythema, flare, and urticaria, and initiate burning skin sensation.[3,4] It is conceivable, therefore, that if tramadol, applied locally, can cause such on-site responses, then it may also produce similar effects in the knee, which leads us to question the safety of intraarticular tramadol injection.

In our opinion, tramadol, resembling "hot chili peppers" in action, should be proven devoid of untoward effects on the knee, before the practice of intraarticular tramadol is considered safe.

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REFERENCES

1. Zeidan A, Kassem R, Nahleh N, Maaliki H, El-Khatib M, Struys MM, Baraka A. Intra-articular tramadol-bupivacaine combination prolongs the duration of postoperative analgesia after outpatient arthroscopic knee surgery. Anesth Analg 2008;107:292–9
2. Marincsak R, Toth BI, Czifra G, Szabo T, Kovacs L, Biro T. The analgesic drug, Tramadol, acts as an agonist of the transient receptor potential vanilloid-1. Anesth Analg 2008;106:1890–96
3. Altunkaya H, Ozer Y, Kargi E, Babuccu O. Comparison of local anesthetic effects of tramadol with prilocaine for minor surgical procedures. Br J Anaesth 2003;90:320–2
4. Acalovschi I, Cristea T, Margarit S, Gavrus R. Tramadol added to lidocaine for intravenous regional anesthesia. Anesth Analg 2001;92:209–14

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In Response:

We agree with Dr. Tabboush that the mentioned side effects are well known.[1] We also are aware of the recent study from Marincsak et al.[2] and acknowledge this work for offering a better understanding of the side effects and/or mechanism of action of tramadol. However, we believe that one should differentiate between the onset of side effects and its correlation with and extrapolation to overall safety. Our study focused on side effects and our data showed no side effects of intra-articular (IA) tramadol 100 mg during the first 24 hr postoperatively.[3] We are convinced that our investigation could be done safely as several studies showed that IA tramadol can be used safely during arthroscopic surgery.[4–6] Additionally, Garlicki et al.[7] showed that tramadol inhibits nociception and edema after its local application directly to the inflamed knee joint, which is in contrast with the reports mentioned by Dr. Tabboush. Finally, although effects of local application of tramadol have been described, many years of clinical use suggest that tramadol can be used intramuscularly and subcutaneously without significant major side effects. However, because IA administration of tramadol still has to be considered an experimental application, we agree that more research is required to prove and support the safety of its IA administration.

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REFERENCES

1. Tabboush Z. Intraarticular tramadol or "hot chili peppers?" Anesth Analg 2007;2092–3
2. Marincsak R, Toth BI, Czifra G, Szabo T, Kovacs L, Biro T. The analgesic drug, tramadol, acts as an agonist of the transient receptor potential vanilloid-1. Anesth Analg 2008;106:1890–6
3. Zeidan A, Kassem R, Nahleh N, Maaliki H, El-Khatib M, Struys MM, Baraka A. Intra-articular tramadol-bupivacaine combination prolongs the duration of postoperative analgesia after outpatient arthroscopic knee surgery. Anesth Analg 2008;107:292–9
4. Beyzadeoglu T, Yilmaz C, Bekler H, Gokce A, Sayin MM. Intraarticular tramadol plus pericapsular incisional bupivacaine provides better analgesia than intraarticular plus pericapsular incisional bupivacaine after outpatient arthroscopic partial menisectomy. Knee Surg Sports Traumatol Arthrosc 2007;15:564–8
5. Alagöl A, Calpur OU, Kaya G, Pamukçu Z, Turan FN. The use of intraarticular tramadol for postoperative analgesia after arthroscopic knee surgery: a comparison of different intraarticular and intravenous doses. Knee Surg Sports Traumatol Arthrosc 2004;12:184–8
6. Tuncer B, Babacan A, Arslan M. Preemptive intraarticular tramadol for pain control after arthroscopic knee surgery. Agri 2007;19:42–9
7. Garlicki J, Dorazil-Dudzik M, Wordliczek J, Przewłocka B. Effect of intraarticular tramadol administration in the rat model of knee joint inflammation. Pharmacol Rep 2006;58:672–9

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Coagulation Monitoring

To the Editor:

Viscoelastic coagulation tests are used to manage perioperative coagulation disorders, and we believe that a recent article by Ganter and Hofer[1] contains a misleading legend probably reflecting a misunderstanding of the concept of the Sonoclot device. In Figure 3B explaining the Sonoclot device, platelet function (PF) was defined as the time from beginning of the Sonoclot measurement until the peak of the curve. However, the function of the platelets is reflected by both the rate of clot formation (steepness of the curve) as well as the retraction of the clot, represented by the following Sonoclot signature after the peak.[2] The downward slope after the peak is produced as platelets further contract the clot. Both the number of available platelets and the level of PF are key determinants of the downward slope. The peak itself is a composite measurement of the fibrinogen and the interaction of platelets with the coagulatory cascade. Finally, also included in the PF time is activated clotting time. This value is obviously influenced by heparin, but not by platelets.

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REFERENCES

1. Ganter MT, Hofer CK. Coagulation Monitoring: Current techniques and clinical use of viscoelastic point-of-care coagulation devices. Anesth Analg 2008;108:1366–75
2. Hett DA, Walker D, Pilkington SN, Smith DC. Sonoclot Analysis. Br J Anaesth 1995; 75:771–6

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In Response:

Casutt and Schüpfer[1] commented on the concept of the platelet function (PF) measured by the Sonoclot Analyzer (Sonoclot Coagulation & Platelet Function Analyzer, Sienco, Arvada, CO). Figure 3B in our article[2] presented an initial characterization of the Sonoclot Signature and attempted to illustrate that there is both a time component related to platelet activation as well as a clot retraction quality component. Although the graph only introduced the concept of PF, the text clearly states that PF as reported on the Sonoclot Analyzer is "derived from the timing and quality of the clot retraction." The actual algorithm for the numerical PF result

