Autologous Transfusion – from Enthusiasm to Reason: Clinical Practice Based on Scientific Knowledge

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By mandatory application of NAT technology in volunteer allogeneic blood donation, the potential risk of transmission of virus diseases by allogeneic blood has been dramatically reduced. Nevertheless, in 2005, the German High Court (Bundesgerichtshof) has reconfirmed its 1990 sentence concerning patient's detailed information with respect to risks and benefits of both allogeneic and autologous blood, and appropriate alternatives. Autologous transfusion has become an established part of clinical transfusion medicine – though still and probably even more controversially discussed than ever before.

Due to an increasing shortage in resources, there is no doubt that, by applying either kind of blood transfusion or appropriate alternatives, serious and rational weighing of indication, risks, benefits, and, last but not least, cost-efficiency is a 'must' in clinical transfusion medicine. Under ideal circumstances, the transfusion measure/alternative applied is both adequate and cost-effective. Due to introduction of the German Refined Diagnosis Related Groups (G-DRGs), i.e. the introduction of a case-specific budget, changes in the budget of one department will have an impact on the budgets of the other departments involved in this case.

As autologous transfusion is not restricted to preoperative autologous blood donation, but covers also perioperative measures of autologous blood processing, the various lectures presented at the 4th International and Interdisciplinary CAT-Symposium (CAT – Concept of Autologous Transfusion) that was held in Nottwil/Lucerne, Switzerland, on January 20–21, 2006, covered a broad spectrum of topics. The principal aim of this meeting is to give the clinician a sound scientific base for routine good clinical autologous transfusion practice. Thus, topics such as the immunomodulation to (allogeneic) blood

transfusion as well as the impact of prestorage leukoreduction of autologous whole blood on biochemical in vitro and in vivo markers, and of hemoseparation on immune status and clinical outcome in major joint surgery were addressed. Furthermore, the actual potential transmission risks of viral-infectious diseases, including vCJD, by blood transfusion, and legal aspects are referred. Moreover, a 'pro' and 'con' discussion takes place whether or not preoperative autologous deposit still should be applied in elective surgery. Interestingly, neither the pro nor the con lecture was presented by an anesthesiologist as one would probably expect, but by internationally well known transfusion specialists, demonstrating that, even within the specialty of transfusion medicine, various aspects are rated controversially. This meeting dealt also with new technologies and new aspects of 'old' topics, e.g. the non-availability of scientifically sound clinical data on platelet gel, the missing impact of negative suction pressure on hemolysis during perioperative cell salvage, or the application of intraoperative cell salvage even from bacterially contaminated sites such as the oral cavity which is actually experimentally and clinically investigated.

The organizers of this symposium would like to thank the speakers for actively participating in this meeting and sharing their broad theoretical and clinical knowledge and experience with the interested medical public. We are also very grateful to the editors of the journal for giving us the opportunity to publish the lectures of the 4th CAT-Symposium in TRANSFUSION MEDICINE AND HEMOTHERAPY.

We hope that the publication of these lectures might help to bring autologous transfusion back into the focus of scientific interest in clinical transfusion medicine.