Discussion

The manufacturers and users of implants which in this study exhibited some organic contaminants report clinical success rates that do not differ from those of implants by other manufacturers. Statements such as "Our success rates are high, so what is the problem?" may be fully justified when discussing statistical average. But the question remains: What happens to those organic contaminants once in the bone? It is hard to imagine that those organic contaminants should have a positive influence on osseointegration. At best, there will be areas with a lack of osseointegration, i.e. smaller areas or entire outer thread edges with less bone contact, because the osteoblasts will have better things to do than to settle on polyethylene residue. Or macrophages cause phagocytosis of these materials during the first remodelling phase, which would amount to biological purification of industrially manufactured surfaces. What then becomes of the phagocytosed materials is another question.

It is probably that residue on implants is tolerated in healthy patients. But can we be sure that this is also the case in immunocompromised high-risk patients? How about extended augmentation sites? And might not increased failure rates be due to processing residue, after all? These questions, however, should actually not arise in the first place, because impurities are preventable, as this study clearly shows.

Elaborate sterile packaging that prevents the implants from contact with the outer packaging are the rule in this study, not the exception. We owe it to our patients to eliminate avoidable risks and should not wait until the public, sensitized by scandals surrounding other medical devices, starts asking questions.

The publication of the results of the previous study just prior to IDS 2013 met with much praise, but was not equally popular with all manufacturers and practitioners. There was also – occasionally strong – criticism, in isolated cases even resulting in advertising contracts being cancelled. The aim of this study is and will remain the documentation of the manufacturing quality of dental implants. So it is all the more gratifying that, as in previous years, development efforts at many manufacturers have paid off in the form of a further increase in product quality, such as the elimination of organic contaminants, more precise threads or more user-friendly sterile packaging. The final study report with numerous examples and a list of all implant systems investigated will appear in the next issue of EDI Journal.

To find the list of references visit the web (www.teamwork-media.de).
Follow the link "Literaturverzeichnis" in the left sidebar.

A final report of this study will be published in the next issue. Readers will be able to request a comprehensive list of up to 100 analyzed implant systems starting in April 2015. Please request via e-mail from the BDIZ EDI office (office@bdizedi.org) or download from www.bdizedi.org.

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