COMMENTARY

Tongue transplantation

On July 19, 2003, a Viennese team of surgeons did the world’s first transplantation of a tongue, grafting a tongue from an ABO-matched heart-beating donor into a 42-year-old man with tongue cancer. The recipient was discharged from hospital a month later with a tracheostomy for airway support and a gastrostomy for nutrition. A hospital spokesperson told the press “Although the tongue still can’t be moved, the patient can already swallow some of his own saliva,” and that he “was already making himself understood”. The graft showed no signs of rejection (8 months’ follow-up to the end of March), and has some useful sensation, enabling the patient to swallow all saliva and some fluids, although some muscle wasting is occurring. When asked about the long-term prospects, the surgeon, Rolf Ewer said: “The liver and kidneys are complicated organs, but the tongue is just a muscle so it should work out.” However, it was thought unlikely that the sense of taste would return.

As Day has put it, “the tongue is not a vital organ in sustaining life, but it may be a vital organ in sustaining the will to live in many people.” Head and neck surgeons agree that advanced cancer of the tongue, particularly at its base, is one of the most difficult problems in head and neck surgery. The only previously published cases of tongue replantation in reality only involved the reattachment of the anterior portion of a human tongue after physical trauma. 6 It might be expected that immunosuppression would lead to a higher rate of recurrent head and neck cancer than would be seen without such suppression. When asked about the long-term prospects, the surgeon, Rolf Ewer said: “The liver and kidneys are complicated organs, but the tongue is just a muscle so it should work out.” However, it was thought unlikely that the sense of taste would return. 6

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This case represents only the latest in a recent wave of transplantations for quality of life rather than quantity. On the assumption that the morbidity of modern immunosuppressive regimens is less than that of life without a functional larynx, hand, tongue, or face, transplantation of the first three organs has now been done with some success, 2,10 and face transplants have recently encouraged debate. 11,12 In fields where conventional medicine or technological advances have made little impact, these operations suggest the possibility of restoring “humanity” to those with no voice, swallowing, or ability to touch and manipulate the environment, or to those severely facially disfigured.

Tongue, laryngeal, hand, and face transplantations share three other features: they all excite a great deal of lay (and mass media) interest and thus publicity; they apply (initially at least) to only tiny numbers of potential recipients; and, with the possible exception of laryngeal transplantation, they have all been the subject of very little preclinical (especially immunological) research before attempted translation into human beings. The amount of publicity generated leads, rightly or wrongly, to scepticism about the motives of those surgeons who pioneer these operations. Such surgeons need to make the case for transplantation crystal clear, to convince others of the ethical and clinical rationale. The pool of potential recipients needs careful assessment, even if a successful pilot series may lead to a relaxing of inclusion criteria with larger numbers later on.

Clearly the introduction of any of these quality-of-life transplantations must be preceded by an adequate period of preclinical research. Such research should include consideration of: what, how much, and indeed whether immunosuppression should be used; the effects of ischaemia-reperfusion injury; and whether we can provide truly functional reinnervation (a fundamental question in all these examples). This research might be seen as an unnecessary and expensive delay to the introduction of techniques that may rehumanise some unfortunate patients. However, if we cannot prove that these organs can function normally in a valid preclinical model, should we really progress to human trials in which the only certain outcome is publicity?

I thank Rolf Ewers for updates about the patient. I have no conflict of interest to declare.

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10 Klotzko AJ. Willing hands . . . but new nonvital transplants could be raising more emotional problems than they solve. New Sci 1999; 162: 51.

Rape of individuals with disability: AIDS and the folk belief of virgin cleansing

Virgin cleansing—the belief that people who have a sexually transmitted disease can rid themselves of the condition by transferring the infective organism by having sexual intercourse with a virgin—has been discussed in The Lancet in relation to HIV/AIDS. 1–3 The practice was first reported in the 16th century in relation to syphilis and gonorrhea in Europe. 4 Although the prevalence of virgin cleansing is unclear, 5 accounts of the belief are reported from sub-Saharan Africa, Asia, Europe, and the Americas. 6

We have identified a variation of this practice in our Global Survey on HIV/AIDS and Disability that warrants attention—“virgin rape” of individuals with disability, by

using flow-tapping velocimetry and single-molecule detection.

people who believe themselves positive for HIV. Although the evidence for virgin rape of infants and young children has been debated, we have identified numerous reports of rape of individuals who are blind, deaf, physically impaired, intellectually disabled, or who have mental-health disabilities. The belief that sex with an individual who is disabled can rid one of a sexually transmitted disease is an old one. According to Smith, prostitutes in Victorian England were “stocked with intellectually disabled ‘virgins’ because it was believed that a syphilitic man could lose the infection by having sex with them”.

Individuals with disability are presumably at risk both because they are, incorrectly, often assumed to be sexually inactive, hence virgins, and because they might be easy targets. Even before the advent of AIDS, women and men with disability suffered an equal, or up to three times greater, risk of rape by a stranger or acquaintance, than their non-disabled peers. Many individuals with disability are physically vulnerable. Some must relegate part or all of their care to attendants, family members, or others, or live in institutions; situations in which abuse is rife worldwide. Additionally some researchers argue that individuals with disability are often psychologically vulnerable, for example, suggest that overprotection and internalised societal expectations make women with disability more vulnerable to psychological pressure for sex and intimacy. Womendez and Schneiderman note that young disabled individuals have few opportunities to learn to set boundaries for physical contact. Studies from the UK report that men with intellectual disabilities who live in the community are often pressured into having sex with non-disabled men whom they meet in public toilets; participating because they are lonely and anxious to please their new supposed friends. A variation of this practice has been reported by six women with disabilities from southern Europe and North America who responded to our survey with reports that they had slept with men from Africa and south Asia. These women believed they were in long-term relationships, but stated they later learned that the relationships had been started because their partners assumed them to be virgins, capable of ridding them of their infection. The man did not inform the women of their HIV status and abandoned them once these women began to show symptoms of infection with the virus.

Individuals with disability are also at increased risk of virgin rape because of a lack of legal protection. Police, lawyers, judges, and even rape-crisis counsellors often have no knowledge of how to help people with a disability. Officials often dismiss individuals with disability who report rape, assuming them to be confused or victims of a misunderstanding. In many countries, people with disability are not allowed to submit police reports, take oaths, or give testimony in court. Police stations and courts are often inaccessible, lacking sign-language interpreters, ramps, and support systems for individuals with intellectual impairments or mental-health disabilities. Because of these barriers, reporting of sexual abuse by individuals with disability is infrequent, and perpetrators can expect to go unpunished. Low rates of reporting not only have legal implications but can mean that potential antiretroviral prophylaxis is not made available to disabled men and women.

Although no epidemiological data are available, interviews with disability advocates and service providers, as well as a review of published reports, found reports of

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