

Donation after circulatory death in a regional hospital in Czech Republic: a case report

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Transplantation is a well-established therapeutic option that saves lives and improves the quality of life of patients. A shortage in organs has led to an increased use of donation after circulatory death. Donation after circulatory death is nowadays used in some way in most countries in the developed world. We present two cases of a successfully conducted donation after circulatory death in a regional hospital with the aim to demonstrate the feasibility and share a successful practice.

Key words: deceased donation, withdrawal of therapy, donation after circulatory death, transplantation, critical care, anaesthesiology.

Dárcovství orgánů po nevratné zástavě oběhu – kazuistika

Transplantace orgánů je dnes již zavedená léčba, která zachraňuje život či zlepšuje kvalitu života pacientů. Nedostatek orgánů vede transplantální komunitu ke zvýšenému využívání orgánů i od dárců po nevratné zástavě oběhu. Dárcovství po nevratné zástavě oběhu se dnes využívá ve většině zemí rozvinutého světa. Představujeme dva případy úspěšně provedeného odběru orgánů u dárců po nevratné zástavě oběhu v regionální nemocnici s cílem ukázat proveditelnost a podělit se o úspěšnou praxi.

Klíčová slova: darování orgánů od zemřelých, ukončení léčby, darování orgánů po smrti mozkové, transplantace, intenzivní péče, anesteziologie.

Introduction

Transplantation is a well-established therapeutic option that saves lives and improves the quality of life of the patients with terminal organ failure [1, 2]. Most deceased organs are derived from donors after brain death (DBD) [2, 3]. However, due to a shortage of transplant organs and improvement in post-transplant outcomes, the harvesting of organs from donors after circulatory death (DCD) is gaining more interest in the transplantation community [2]. A shift in the DCD paradigm is also visible in transplantations of the lung and heart, the two organs most missing [4]. DCD is adopted in many countries in the developed world. However, DCD is a significantly smaller pool of donors compared to DBD [5]. This is mainly because of ethical and legislative obstacles [2]. Notably, even in the countries that have adopted DCD, its practice is mainly restricted to tertiary hospital centres, including the Czech Republic. Reasons may include a lack of technical expertise and insufficient organizational capabilities in

regional hospitals [5–7]. This case report aims to demonstrate the feasibility of the adoption of controlled DCD in regional hospitals and share a successful practice to facilitate the use of the DCD pool in these hospitals.

Case report 1

A 40-year-old man was admitted to the intensive care unit (ICU) of a regional hospital after successful cardiopulmonary resuscitation (CPR) following hypoxic circulatory arrest due to a suicide attempt by hanging. The patient was found by a police officer who initiated basic life support (BLS). The medical rescue service arrived 10 minutes later and continued with advanced life support (ALS) according to the current guidelines, successfully restoring spontaneous circulation (ROSC) after 31 minutes.

Upon admission to the ICU, the patient was under pharmacological sedation and on mechanical ventilation. He was

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