

# **Independent Tribunal into Forced Organ Harvesting In China: Witness Testimony**

## **Live Organ Harvesting in China**

- a submission to the

### **Independent Tribunal into Forced Organ Harvesting of Prisoners of Conscience in China**

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Live organ harvesting is different from living organ donation. Living organ donors donate an organ or part of an organ, e.g. a single kidney or part of a liver. Living organ donors remain alive after donation. In contrast, vital organs are removed during live organ harvesting and the victims are usually killed by the procedure.

Live organ harvesting doesn't necessarily mean that the organs are procured from conscious individuals without anesthesia. It means that the so-called "donors" are alive (either under anesthesia or not) at the start time point of organ procurement.

There are 4 different types of live organ harvesting practice known from China.

#### **1. Organ harvesting from prisoners incompletely executed by shooting**

There are well documented cases in which the gunshot was deliberately fired to the right chest instead to the head of the prisoners during execution. The purpose was to maintain blood circulation for organ harvesting in order to improve quality of the harvest organs.<sup>1</sup> The first documented case was in 1978. Zhong Haiyuan, a schoolteacher from the Jiangxi Province, was sentenced to death for her "counterrevolutionary" thoughts. In addition to the investigation of the book author, one of the execution officers revealed much details. The live organ harvesting in this case was planned in advance.

In 1995, the former surgeon Enver Tohti was ordered to harvest organs from an incompletely executed, still-living prisoner in China. He has testified in many occasions including at a European Parliament hearing on 29 January 2013.

In 2015, Jiang Yanyong, a famous high-ranking military doctor in Beijing, told to Hong Kong journalists that corruption, illegal transplantation and organ trade were common in military hospitals. In his interview, Jiang also revealed the practice of the organ harvesting from still-living bodies. His statement implies that this brutal practice was relatively common.

Unfortunately, there is no systematic studies available so far and the incidence of the practice of incomplete executions in China is unknown.

For details see our recent publication.<sup>1</sup>

## **2. Organ harvesting from prisoners after lethal injection**

Since 1997, execution in China has been increasingly performed by lethal injection in parallel to shooting. Unfortunately, organ procurement from prisoners after lethal injection was performed under a condition that the prisoners were still alive.

This is a systemic failure.

First, the criteria of death determination issued by the state neither conform to current medical science nor to any standard of medical ethics. In the Provision on Issues in Execution by Injection issued by the Supreme People's Court in 2001, death was defined as fulfillment of all of the following three criteria: (1) cessation of heartbeat, (2) cessation of respiration, and (3) dilated and fixed pupils (diameter > 0.5 cm).<sup>2</sup> Although these criteria may be reasonable for determination of natural death, they are inappropriate for lethal injection, because lethal injection-induced death differs significantly in its mechanisms from natural death or death caused by disease. Moreover, death by lethal injection is simply determined by a forensic doctor and the Provision doesn't require any objective verification of death, not even the confirmation of heart arrest by the electrocardiogram (ECG), leaving loopholes for abuse.

Second, the loopholes in the law are systematically exploited.<sup>2</sup> In China, death is pronounced within tens of seconds after starting the lethal injection. At this stage, however, neither the common criteria for cardiopulmonary death (irreversible cessation of heartbeat and breathing) nor that of brain death (irreversible cessation of brain functions) are met.<sup>2</sup> For comparison, the North Carolina warden waits for a flat line appearing on the ECG monitor, and waits for another 5 minutes before declaring death. In total, death is pronounced in the United States in the time range of 14 to 18 minutes after starting the lethal injection.<sup>2</sup>

Because the announcement of death within tens of seconds after starting the lethal injection is a common practice in China,<sup>2</sup> it can be assumed that all the organ procurement after lethal injection happened on still-living bodies.

Furthermore, analysis of postmortem blood thiopental level data from the United States indicates that thiopental, as used in lethal injection, may not provide sufficient surgical anesthesia. The dose of thiopental used in China is kept secret. It cannot be excluded that some of the organ explantation surgeries on prisoners subjected to lethal injection are performed under insufficient anesthesia in China. In such cases, the inmate may potentially experience asphyxiation and pain. Yet this can be easily overlooked by the medical professionals performing the explantation surgery because pancuronium prevents muscle responses to pain, resulting in an extremely inhumane situation.<sup>2</sup>

The two types of live organ harvesting discussed above happened to prisoners sentenced to death. Therefore, an execution (either complete or incomplete) must be performed before organs are procured.

The situation for prisoners of conscience is different. Without death sentence, an execution before organ procurement is not necessary. Therefore, organ procurement from prisoners of conscience is almost always live organ harvesting because killing of the prisoners before organ harvesting would otherwise decrease the organ quality.

## **3. Execution by organ explantation**

It is unclear how organs are procured from prisoners of conscience. However, a case published in the "Henan Medical Journal" may provide a picture how such live organ harvestings may look like.

The operation was performed in a hospital of the People’s Armed Police Force in 2001 and the paper published in 2003.<sup>1</sup>

In the section 2.1 of this research paper, the “major points of donor heart removal” included: “systemic heparinization (2 mg/kg); delivery of cold cardioplegia to the heart through the aortic root until the heart stopped beating; cut of the superior vena cava at 4 cm above right atrium ...”. Besides blood type and heart weight, no other information about the donor was provided in the paper.

The fact that systemic heparinization was performed and heart beating was stopped by cold cardioplegia implies that the blood was circulating, and the heart was functional before the explantation procedure. Because brain death determination is only performed after 2003 in China, this donor couldn’t be a brain death patient. Therefore, the only possibility left is that the donor was not a brain death patient and the cardiac arrest was induced by the cold cardioplegia delivered by the medical professionals. Death of the donor was caused finally by heart removal.

#### 4. Organ harvesting under the pretext of brain death

In 2003, the Ministry of Health drafted *Standards for Determining Brain Death (Adult) (Draft for Comments)* and *Technical Specifications for Determining Brain Death (Adult) (Draft for Comments)* and published them in the Chinese Medical Journal and other journals. This was the start of organ donation after brain death, although these proposed technical specifications do not have legal effect.<sup>3</sup> Until today, there is no brain death legislation in China.

China’s clinical criteria for determining brain death require the fulfillment of all the following three conditions: (i) deep coma, (ii) absence of brainstem reflexes, and (iii) no spontaneous respiration (depending on mechanical ventilation to maintain breath completely and apnea test to confirm no spontaneous respiration). Thus, a patient undergoing determination for brain death must already be on a ventilator.

However, in a number of Chinese medical papers, the transplant organs were listed as coming from “brain-dead donors,” while the organ procurement processes indicated otherwise. Examples are shown in the table below:

Publication	Hospital	Operation	Excerpt in Chinese	English translation	Comments
Sheng J et al. Journal of Southeast China National Defence Medical Science 2005 (01): 17-18	Fuzhou General Hospital of Nanjing Military Command	Heart transplant (n=5)  (2002-2004)	5例供体均为青年男性。脑死亡后气管插管辅助呼吸并维持循环稳定，全身肝素化后阻断主动脉...	All 5 donors were young males. <b>After brain death, intratracheal intubation was performed</b> to aid respiration. The circulation was maintained and stabilized. After systemic heparinization, the aorta was clamped...	Apnea test was not performed.
Wu L et al. Chinese Journal of Nursing. 2008 (02): 168-169	Fujian Medical University Union Hospital	Combined heart-lung transplant (n=4)  (2004-2007)	供体均为脑死亡者，行气管插管，经胸骨正中开胸，肝素化，切除心包...	All donors were <b>brain death</b> individuals. <b>Intratracheal intubation</b> was performed, a midline incision made, heparinization performed, pericardium excised...	No apnea test. Intubation directly followed by organ procurement.

Wang F et al. Journal of Kunming Medical University. 2013; 34 (03): 89-92	Yan'an Hospital Affiliated to Kunming Medical University	Heart transplant (n=7)  (2003-2013)	7 例供体均为生前同意捐献遗体的男性脑死亡者，年龄 22-45 岁。 供体脑死亡后插入气管导管人工通气，同时迅速开胸，自主动脉根部注入肝素 3mg/kg 后阻断升主动脉，于主动脉根部灌注 4°C St.Thomas 液 500-1000 mL，使其迅速停搏。	Seven donors, aged 22-45 years, were all male brain death individuals who agreed to donate their bodies during their lifetime. <b>After donors' brain death, intratracheal intubation was performed</b> for mechanical ventilation and, at the same time, thoracotomy was done quickly. After injection of 3 mg/kg heparin into the aortic root, the ascending aorta was clamped. 500-1000 mL 4°C St. Thomas solution was perfused via the aortic root <b>to induce cardiac arrest.</b>	A brain death determination was not performed (no apnea test).  The heart was functioning.
Chen S et al. Chinese Journal of Cardiovascular Review. 2007 (07): 512-514]	Zhenjiang First People's Hospital	Heart transplant (n=4)  (2005-2006)	供体均为男性，年龄 23-40 岁，均为急性脑死亡患者。急性脑死亡后紧急插管，吸尽呼吸道分泌物，纯氧通气。经胸骨正中切口，肝素化，切开心包，探查心脏，分离上、下腔静脉以及主动脉根部。	The 4 donors, aged 23-40 years, were all male <b>acute brain death patients.</b> <b>After acute brain death, intubation was performed immediately</b> , secretions in the respiratory were removed and mechanical ventilation was done with pure oxygen. A midline sternal incision was made, followed by heparinization and incision into the pericardium...	A brain death determination was not performed (no apnea test).
Chen T et al. Chinese Heart Journal 2011 (05): 699-700	Xijing Hospital of the Fourth Military Medical University	Combined heart-lung transplant (n=1)  (2008)	供体来自一位男性脑死亡患者。首先吸净供体呼吸道分泌物，行气管插管通气，经外周静脉注射甲基强的松龙 500 mg 及 2.5 mg /kg 肝素，无菌消毒铺单后行胸部正中切口，切除心包前壁... 阻断上下腔静脉，切断上腔静脉，数个心动周期心脏排空后，阻闭升主动脉，灌注冷的心肌保护液 ...	<b>The donor was male brain-dead patient.</b> Procurement procedure: First, secretions in the respiratory tract were removed. <b>Endotracheal intubation was performed for mechanical ventilation</b> , and 500 mg methylprednisolone and 2.5 mg/kg heparin were injected via a peripheral vein. A middle chest incision was made after skin disinfection... The superior and inferior vena cava were clamped, and the superior vena cava was cut. <b>The heart was emptied after several heartbeat cycles.</b> The ascending aorta was clamped ...	Intubation and mechanical ventilation were directly followed by organ procurement.  The heart was functioning.

In these cases, it was clear that a brain death determination was not performed because the donors were not on ventilator (thus no apnea test) before organ procurement. Moreover, in some cases, the organ procurement procedure indicates undoubtedly that the heart of the donor was functioning. This means that the condition of these donors neither met the criteria of brain death nor that of cardiac death – the organs were harvest from living bodies.

Type	Incidence	Anesthesia
Organ harvesting from prisoners incompletely executed by shooting	unknown	no
Organ harvesting from prisoners after lethal injection	~ 100%	yes, but can be insufficient
Execution by organ explantation	unknown	very likely
Organ harvesting under the pretext of brain death	unknown	unclear

In conclusion, live organ harvesting has a history in China. The first type, organ harvesting from prisoners incompletely executed by shooting, is a brutal abuse with unknown incidence. The second type, organ harvesting from prisoners after lethal injection, is even legal in China because of the loopholes in the death determination criteria. The victims of the third type, death by organ removal, are very likely prisoners of conscience without death sentence. The identity of the fourth type, organ harvesting under the pretext of brain death, is unclear.

#### References:

1. Paul NW, Caplan A, Shapiro ME, Els C, Allison KC, Li H. Human rights violations in organ procurement practice in China. *BMC Med Ethics* 2017; 18(1):11 [<http://rdcu.be/o617>].
2. Paul NW, Caplan A, Shapiro ME, Els C, Allison KC, Li H. Determination of Death in Execution by Lethal Injection in China. *Camb Q Healthc Ethics* 2018; 27(3):459-466 [<https://doi.org/410.1017/S0963180117000846>].
3. China Organ Harvest Research Centre (COHRC). "Abuse of Brain Death in China" (page 119) in COHRC 2018 Report. 2018 [Available from: <https://www.chinaorganharvest.org/app/uploads/2018/06/COHRC-2018-Report.pdf>].