G.N. 1294

MEDICAL REGISTRATION ORDINANCE (Chapter 161)

ORDER MADE BY THE INQUIRY PANEL OF THE MEDICAL COUNCIL OF HONG KONG

DR LEUNG HIP WING (REGISTRATION NO.: M13638)

It is hereby notified that after due inquiry held on 30 November 2020, 22 May 2021, 24 May 2021, 4 July 2021, 18 July 2021 and 31 October 2021 in accordance with section 21 of the Medical Registration Ordinance, Chapter 161 of the Laws of Hong Kong, the Inquiry Panel of the Medical Council of Hong Kong ('Inquiry Panel') found Dr LEUNG Hip Wing (Registration No.: M13638) guilty of the following disciplinary charges:—

'That in or about March 2016, he, being a registered medical practitioner, disregarded his professional responsibility to his patient ('the Patient'), in that, he failed to discontinue repair of the anterior talofibular ligament after resuscitation following cardiac arrest.

In relation to the facts alleged, he has been guilty of misconduct in a professional respect.'

The name of Dr LEUNG has been included in the General Register from 2 July 2002 to the present. Dr LEUNG has been included in the Specialist Register under the specialty of Orthopaedics and Traumatology since 6 May 2009.

Briefly stated, the Patient was admitted to Union Hospital ('*UH*') at 14.22 hours on 2 March 2016 under the care of Dr LEUNG. It was mentioned in the Admission Arrangement Form signed by Dr LEUNG that the '*Reason for Admission*' was '*left ankle arthroscopy+PRP (Platelet Rich Plasma) Injection*'; and the name of a Dr LAM ('Dr LAM') was put down in the column for '*Anaesthetist*'.

There is however no dispute that the operations eventually carried out ('the Incident') were (i) an arthroscopy that involved osteochondral lesions, shaving, microfracture; (ii) PRP injection; and (iii) repair of anterior talofibular ligament ('ATFL').

According to the medical records obtained from UH, the Patient arrived at the Operation Theatre 1 ('OT1') at around 19.15 hours on 2 March 2016. He was put on blood pressure ('BP') monitoring, ECG (Electorcardiogram); and pulse oximeter, all of which were connected to an anaesthesia machine.

Between about 19.25 to 19.29 hours, Dr LAM used incremental concentration of Sevoflurane up to 6%. As 6% Sevoflurane was given, the Patient was in the plane of General Anaesthesia ('GA') from about 19.29 to 19.45 hours. Spontaneous respiration *via* facemask with circle circuit was used. Between about 19.30 to 19.44 hours, Dr LAM gave intermittent boluses of Pethidine in a total of 50mg. At around 19.45 hours, Dr LAM turned off Sevoflurane and switched to use Propofol target-controlled infusion ('TCI'). Spontaneous respiration *via* facemask was changed to spontaneous respiration *via* nasal cannula at 6L/min. No more respiratory rate or EtCO2 was measured from the anaesthesia machine.

Without delegating duty to anyone, Dr LAM left OT1 thrice, namely, (i) for about half a minute during 19.45 to 20.00 hours to get Rocephin; (ii) for about half a minute to get a mobile phone charger during 20.14 to 20.16 hours; and (iii) for about a minute to get an adaptor and charging cable for his mobile phone during 20.14 to 20.16 hours.

After his return to OT1 at around 20.16 hours, Dr LAM noted that the SpO2 reading did not display on the monitor screen. There was however no dispute from reading the data retrieved from the anaesthetic machine after the Incident that SpO2 reading was '*undetectable*' from 20.01 to 20.25 hours.

According to Dr LAM's medical report to UH dated 5 April 2016, '*[f]rom 20[:]20 to 20[:]21 hours, [he] noticed that the [Patient's] heart rate dropped to 35/min…[His] impression was a vaso-vagal attack, which was precipitated by intense pain stimulation in the surgical site…*' However, the Patient's heart did not respond to Atrophine 1.2mg that he gave. He stopped the TCI Propofol at 20.22 hours. However, the Patient was found to have no heart rate at 20.24 hours. Facemask hand ventilation was started.

According to the Investigation Report prepared by UH, the contents of which were unchallenged by Dr LEUNG, Dr LAM asked Nurse CHOW, the Circulating Nurse during the Incident, at around 20.24 hours '*to check the oximeter probe*'. Nurse CHOW '*found it on the*

ground at right side of the [P]atient's operation bed and reconnected the oximeter immediately'. Dr LAM then '*ordered Adrenaline 1:10,000 (1mg in 10 ml) and prepared intubation at the same time*'. Nurse CHOW immediately gave the Patient Adrenaline by injection. Meanwhile, Nurse WONG, the scrub nurse during the Incident, informed Dr LEUNG '*to stop the operation and [she] de-gowned to call for help*'. An Operating Theatre Assistant '*arrived and assisted intubation*'. At around 20.28 hours, another Anaesthetist, the Deputy Nurse-in-Charge and another nurse also '*arrived to support*'. Dr LAM then '*ordered 2nd dose of Adrenaline 1:10,000 (1mg in 10 ml)*' and '*performed chest compression around 5 times*'.

The Patient had a return of spontaneous circulation at around 20.29 hours. Dr LAM closely monitored the Patient from 20.35 to 20.40 hours. There was no dispute that Dr LAM did not advise Dr LEUNG to discontinue the remaining procedures for repair of ATFL and intra-articular injection of PRP. The remaining procedures were completed at around 21.15 hours.

The Patient failed to regain consciousness during the reversal of anaesthesia. At around 22.00 hours, decision was made to transfer the Patient to the ICU of Queen Elizabeth Hospital ('QEH') for further management. Meanwhile, the Patient had 2 episodes of seizure at around 23.20 and 23.50 hours respectively. There were also 3 episodes of hypotension at 23.30 hours; 23.35 hours and 23.40 hours respectively. From around 00.30 to 00.43 hours, Dr LAM together with a nurse escorted the Patient from UH to QEH by ambulance.

MRI for the Patient at QEH later confirmed hypoxic ischaemic brain injury. The Patient subsequently developed nosocomial infection and bilateral limb contractures. Upon discharge from QEH to convalescent institution, the Patient remained urinary and fecal incontinent. He was bed bound and not communicable. He also required feeding with nasogastric tube and medication to prevent seizure and myoclonus.

On 7 July 2016, the Secretary of the Medical Council received a complaint from the Patient's father against both Dr LEUNG and Dr LAM in respect of the Incident.

There was a consensus amongst expert witnesses for the Secretary and Dr LEUNG that whether to continue or discontinue the repair of ATFL after resuscitation of the Patient should be a joint decision of Dr LEUNG and Dr LAM.

The Inquiry Panel did not accept the evidence of Dr LEUNG that he first came to know that the Patient had developed cardiac arrest after the remaining procedures were completed at around 21.15 hours. From where he was standing, the Inquiry Panel found it implausible for Dr LEUNG not to notice that external cardiac massages of 5 times were administered at the other end of the Operation Table to resuscitate the Patient. In the view of the Inquiry Panel, the fact that Dr LAM had twice ordered Adrenaline, a drug commonly used in resuscitation following cardiac arrest, would hardly escape the attention of anyone (except the Patient who was unconscious) present at OT1.

The Inquiry Panel did not accept the evidence of Dr LEUNG that he had specifically asked Dr LAM about the Patient's '*vital signs, including airway, breathing (oxygen saturation) and circulation (blood pressure, heart rate and need of inotropic support)*'.

In the view of the Inquiry Panel, Dr LEUNG ought to ask Dr LAM more about the Incident and look at the Patient's vital signs himself. Had Dr LEUNG reviewed all the vital signs of the Patient, including the data retrieved from the anaesthesia machine and the Anaesthetic Record which showed that the Patient body temperature had fallen to 30.6°C during resuscitation following cardiac arrest at 20.30 hours, he ought in the view of the Inquiry Panel to discontinue with repair of the ATFL.

The Inquiry Panel agreed with the Secretary's expert witness in Orthopaedics and Traumatology ('O&T'), Dr TSE, and Dr LEUNG's expert witness in O&T, Dr YEUNG, that when a young man like the Patient, who was previously of good health, suddenly developed cardiac arrest in the course of a low risk surgical/invasive procedure like the present and the cause of which was unknown, '*unless continuation of surgery is critical and need to be completed, it should not be done and the wound closed in the quickest manner*'. In this connection, the Inquiry Panel agreed with Dr TSE and Dr YEUNG that repair of ATFL was '*not critical, emergent or life-saving*'.

By failing to discontinue repair of ATFL after resuscitation following cardiac arrest, Dr LEUNG had in view of the Inquiry Panel by his conduct during the Incident fallen below the standards expected of registered medical practitioners in Hong Kong. Accordingly, Dr LEUNG was found guilty of the disciplinary charge against him.

Taking into consideration the nature and gravity of the disciplinary charge for which Dr LEUNG was found guilty and what was heard and read in mitigation, the Inquiry Panel ordered that Dr LEUNG's name be removed from the General Register for a period of 2 months.

Dr LEUNG subsequently lodged an appeal against the order made by the Inquiry Panel but he abandoned the appeal on 24 January 2022.

Pursuant to the Inquiry Panel's order, Dr LEUNG's name has been removed from the General Register on 18 March 2022; and pursuant to section 19(B)(1) of the Medical Registration Ordinance, Dr LEUNG's name has also been removed from the Specialist Register on the same day.

The order is published in the *Gazette* in accordance with section 21(5) of the Medical Registration Ordinance. The full decision of the Inquiry Panel of the Medical Council is published in the official website of the Medical Council of Hong Kong (http://www.mchk.org.hk).

LAU Wan-yee, Joseph *Chairman, The Medical Council of Hong Kong*