

**Independent Forensic Services, LLC**

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## FORENSIC PATHOLOGICAL

### REPORT

*Case-Nr.* : 18-008-D *Ref.*  
*Name* : MADSEN, Colin :  
*D.O.B.* : 02-18-1991 *Sex* : Male

*Subject* : Suspicious death  
*Found on* : 04-04-2016  
*Remarks* :

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#### 1. FORENSIC PATHOLOGICAL DIAGNOSIS

*Manner of death:* Most likely non-natural, homicide  
*Mechanism of death* : Most likely external mechanical airway obstruction  
*Cause of death* : Most likely suffocation

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## **2. CIRCUMSTANCES**

The body of Colin Madsen, born feb. 18<sup>th</sup> 1991, was found on April 4<sup>th</sup> 2016 around 11:30 a.m. in a mountain area about 2 kilometers to the north of the Arshan settlement. Mr. Madsen went missing in the night from March 26<sup>th</sup> to March 27<sup>th</sup> 2016.

## **3. AUTOPSY VIDEO ANALYSIS**

### **a. PARTICULARITIES**

- The body had no socks on.
- Surgical markings on both feet

### **b. SIGNS OF DECOMPOSITION**

- Post-mortem hypostasis on the backside of the body.
- Mummification of the lips.
- Marbling of the skin.

### **c. SIGNS OF BLUNT FORCE**

- On the upper extremities multiple bruises of (macroscopically) around the same age. The bruises are mainly located on the stretch side of the right and left arm, though some can be found on the flexion side as well. They can partly be interpreted as fixation injuries (left and right upper arm inside), partly as defense injuries (extension side of the left and right forearm).
- On the backside of the body, at the height of the waist / lumbar spine a big, bluish discoloured area of the skin, compatible with bruising (no bleaching on pressure).
- The right hand shows on the ulnar side a large area of purple–bluish coloration. The back of the right hand also shows a purple–bluish coloration. Since the fingers of the right hand only show discoloration over the first half of the first phalanges, they are most likely to be interpreted as defense injuries. The left hand shows bluish discolorations on the fingers, likely to be caused by a blunt force, committed by a third party or by the person himself.



- On the lower extremities multiple bruises are seen on the extension side of the lower leg. These are situated on impact typical places, though it seems rather strange, that the worn clothes don't show any sign of injury.
- On the flexion side of the lower left and right leg, multiple bruises can be seen. these are not on impact typical places situated, so they have another origination.

#### **d. SIGNS OF TANGENTIAL BLUNT FORCE**

- On height of the left scapula and almost running parallel to the spine, a more linear formed abrasion can be seen. This is surrounded with a more bluish coloration of the skin, as a sign of bruising.
- On the medial side of the right arm there seem to be some scratch wounds
- On the right arm in extension of dig 5 one smaller bruise in the lower third of the arm. In extension of this on the upper third part an area suspected to be a bruise.
- On the left forearm on the bending side multiple red skin colorations, not parallel situated. Most likely to be abrasions. In the area of the left elbow, multiple abrasions can be seen.
- On the left forearm, on the ulna side, in extension of dig 5 in an area spreading over the whole forearm a large bruise with abrasions.
- The right hand shows some abrasions on the fingers, including the thumb. The left hand shows some abrasions on the middle hand in extension to the middle finger.
- Both upper legs show 2 areas of abrasion in the middle third part. On the backside of the right upper leg, near the knee, 2 small abrasions can be seen.

#### **e. SIGNS OF (TANGENTIAL) BLUNT FORCE TO THE HEAD AND NECK**

- On the scalp, 2 abrasions with surrounding bruises, left of the middle line of the head.
- Bluish discoloration of the skin on the lower eyelids.
- Abrasions on the left side of the head: parietal on the right side and on the left ear. There seem to be some bruises on the left ear, and the skin behind the left ear as well.
- Dried up abrasion-like changes of the skin of the nostrils and the lips. The lips seem to be surrounded by a discoloration of the skin. Suspectible for bruising.



- On the right side of the neck, a light bluish discoloration of the skin, most likely caused by bruising (video M2U0307, 14:30). Furthermore a more linear shaped, brown–red discoloration, about 3 cm in length. Approximately 3 cm below this skin change, another linear formed, approximately 2 cm of length brownish coloration of the skin.

**f. SIGNS OF ASPHYXIA**

- Tardieu spots on lung and heart membranes
- Emphysematous lungs
- Predominantly fluid corpse blood

**g. SIGNS OF HYPOTHERMIA**

- None (no specific signs of the stomach, no signs of retropatellair hemorrhage, retracted testis etc.)

**h. POSSIBLE SIGNS OF LIGATURE STRANGULATION**

- No specific findings (no internal / external mark, no hemorrhages in the tongue or neck organs, no petechial bleeding)

**i. POSSIBLE SIGNS OF MANUAL STRANGULATION**

- On the front side of the neck there seem to be at least two bruises
- Suspect skin markings on the front and lateral sides of the neck, bruises?

**j. POSSIBLE SIGNS OF SMOTHERING**

- Remarkable mummification of both nostrils, the tip of the nose free from any mummification.
- Around the lips a red–brownish coloration of the skin, expanding to the chin.



#### 4. INTERPRETATION

The body of Colin Madsen showed no signs of sharp injuries, gunshots, thermal or sexual injuries. There was no macroscopic anatomical cause of death.

The body showed several (tangential) blunt injuries on the extremities and the head.

On the scalp, there are 2 abrasions, surrounded by bruising, which cannot be caused by a fall. They are situated above the so-called "hat-line" and are most likely to be caused by an external force to the head.

Furthermore, there are remarkable abrasions on the left ear, which cannot be explained by post-mortem skin dry up. They are sharply bounded instead of more diffuse. Also, there is a suspicion of bruising on the left ear and the skin behind the left ear.

Notable are the different colorations of the nostrils and the lips. The lips show signs of mummification, the nostrils seem to be more vital in the form of abrasions. The skin between the lower lip and the chin shows also some susceptible discoloration, which cannot be explained by post-mortem hypostasis. Most likely, they are caused by an external blunt force. The combination of the discolorations/abrasions of the nostrils and the discolorations of the skin around the lips and between the lower lip and chin can be seen in cases of external mechanical asphyxiation, like smothering or other external blockage of the airways.

The neck showed at least 2 bruises on the right side. There are 2 linear brownish shaped skin changes next to the midline of the body, it cannot be clearly detected whether these are bruises or skin changes due to abrasions, in case of bruises, they are susceptible for manual strangulation with hands. Because of the fact that there are no petechiae in the eyes, the skin of the cheeks, ears and behind the ears, manual strangulation / a manual assault to the neck did probably not cause his death, but might have contributed to it. A so-called reflex-death by triggering the vagus nerve can not be completely ruled out, but the other signs found on the body do not support this hypothesis.

The lumbar area showed a big bluish discoloration caused by an external blunt force to the body. These discolorations can be seen when big objects hit the back, but also if a person fixates the body with one or both knees positioned in this area.

The blunt injuries to the arms / wrists are seen in cases of fixation, especially the smaller ones (app. 1–1.5 cm in diameter). The large area on the left forearm could find its cause as a defense injury, due to protection to the body.

There are several (tangential) blunt injuries on the lower extremities, especially on the lower leg on the front side. This is a typical impact site of the leg hitting against objects and can be seen more often in children and elder people, but is remarkable finding on the body of this young adult. Even more, since his trousers did not show any sign of damage near the location of the injury. Also notable are the bruises



and abrasions on the back side of his legs. The abrasions on the flexion side of the upper legs cannot be explained by daily and common injuries. There is a good chance, that these findings are crossed by an external force used by a third-party.

The internal examination shown so-called "Tardieu spots" on lung and heart membranes. This is a sign of asphyxia, but can also be seen in other causes of death. In combination with the emphysematous lungs and the predominantly fluid corpse blood, the chance of suffocation increases significantly.

The autopsy video showed no signs of hypothermia, nor any (greater) damage from predators. Notable is also, that there are no signs of sarcophagous insects, eggs etc. Which means, that the time the body spent in free nature, depending on the surrounding day and night temperature, is rather a couple of hours till maximal a day, presumed that the area where he was found in, has a normal wildlife. There was no significant decomposition of the internal organs.

## 5. CONCLUSIONS

Based on the autopsy video is, following preliminary conclusions regarding the death of Colin Madsen, died at the age of 25, can be made :

- There are no signs of a natural, anatomical cause of death
- The body does not show signs of predator injuries nor sacrophagous insects.
- There are signs of so-called defensive injuries
- The body showed several bruises as a sign of an external blunt impact.
- The large bruised area at the lumbar region could be cause by fixation.
- The scalp of the artery showed evidence of blunt force impact, not to be explained by fall
- The lower extremities showed several bruises on the front and back side of the legs. On the front side of the legs with a slight chance to be caused by hitting objects, though also a possibility being caused by an external impact.
- The face and neck showed signs of external mechanical suffocation, more likely to be caused by smothering then manual strangulation. This is supported by the internal findings of fluid corpse blood, emphysematous lungs and the Tardieu spots found on the lung and heart membranes.



Based on the above information, following forensic pathological diagnoses can be made:

**Cause of death:** Most likely suffocation

**Mechanism of death:** Most likely external mechanical airway obstruction

**Manner of death:** Most likely non-natural cause, homicide

## 6. ADVICE

The information provided showed no signs of a so called autopsie of the limbs and back. For further support for the above mentioned diagnoses an autopsie of the limbs is advised to be done. There is still a chance to retrieve macro- and microscopical findings to support or to negate the preliminary findings.

## 7. FINAL DETERMINATION

The conclusions in this expertise are based on the information provided and the own findings. If new information becomes available in this case, this may affect the conclusions. Changes will then remain reserved.

This independent expertise was made to the best of our knowledge and conscience. Excerpts from this expertise can only be used for other purposes with the permission of the client and the signatory.

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