

***An up-date on the science relating to
Religious Slaughter***

***Human
Rights***



**Inverted
logic**

***Religious
Rights***

***Animal
Rights***

Animal Welfare logic: - The method causes a large wound, and so there is a risk of pain.

Religious logic: - The method is decreed by God and so it is painless.

Culture logic: - The method is part of a belief which is free from interference

Religious slaughter methods are based on tradition and date back to the respective divine direct method.

Asking someone in those faiths to change their method is similar to asking them to be a bad jew or a bad muslim.

In other words, the methods are synonymous with good religious practice.

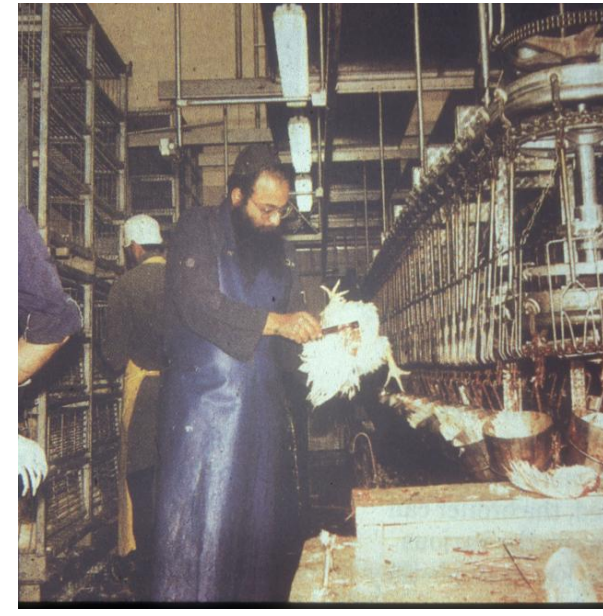
Welfare Issues

- ***Is restraint of the animal excessively stressful ?***
- ***Is the cut painful ?***
- ***Is there distress after the cut and before death ?***

Topics

- the focus is on cattle which are not stunned
- international perspective
- *restraining methods*
- *skin cutting methods*
- *early arrested blood flow*
- *delays in loss of consciousness*
- *blood entering the respiratory tract*
- *recommended cutting method*

Restraining methods



Casting method



Risk of pain during the cut

- ***Cutting method***
- ***Number of cuts***
- ***Knife sharpness***
- ***Animal movement***
- ***Access to the neck***

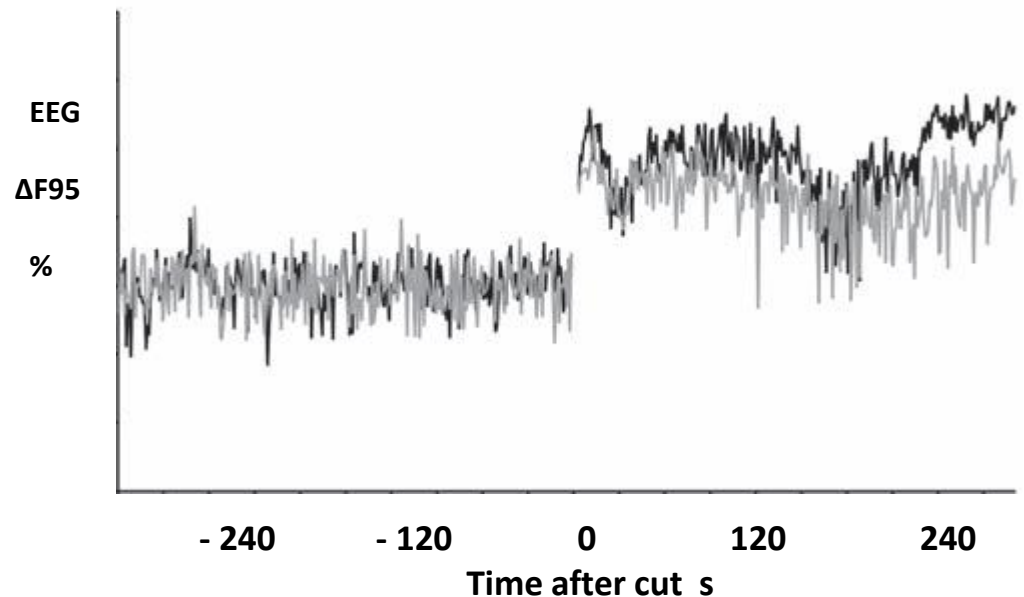


<i>Method</i>	<i>Number of cuts \pm se</i>
Cattle shechita	3.2 \pm 0.1
Cattle halal	5.2 \pm 0.2
Water buffalo halal	6.9 \pm 1.5



Potential causes of pain \pm distress

- ***Interference***
- ***Emotional distress***
- ***Pain at the wound***
- ***Blood aspiration***
- ***Time to loss of consciousness***



The following account summarises

- ***5 peer-reviewed studies***
- ***in 8 countries***
- ***on over 1500 cattle***
- ***subjected to either halal slaughter or shechita without stunning***

1. Skin opening methods

Reciprocating cuts



Single sweep



Chop



The 1¼ cut :-

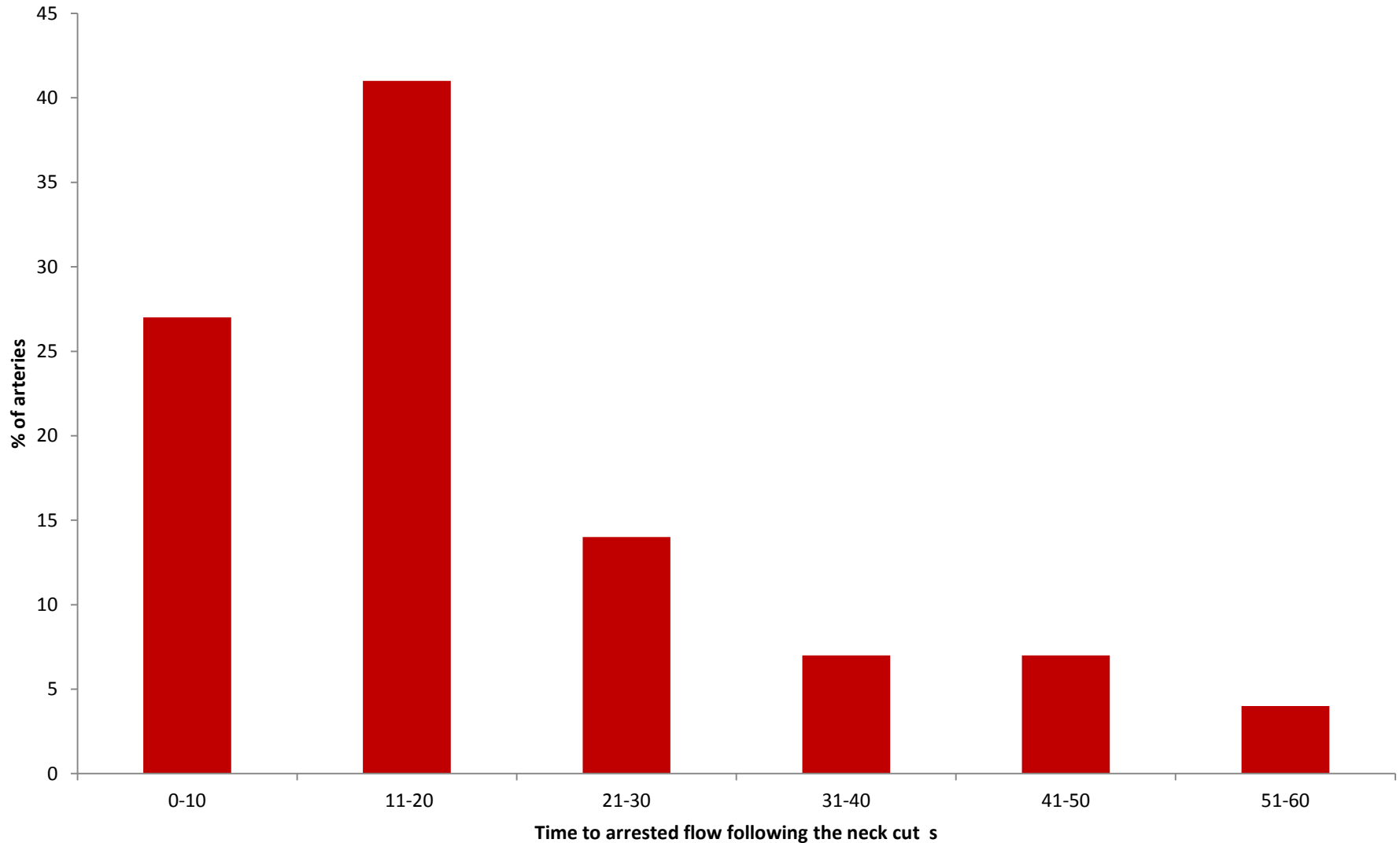
A very short forward action followed by a long reverse direction reciprocating cut through the main soft tissues of the neck.

2. Early arrested blood flow

- 126 cattle***
- halal slaughter at 13 premises***
- time to arrest of blood flow assessed
by palpation or visual inspection***

In 36 cattle, blood flow was arrested within 60 s of making the cut.

Time to arrested blood flow in 44 arteries which experienced early arrested flow (within 60 s) in 36 cattle



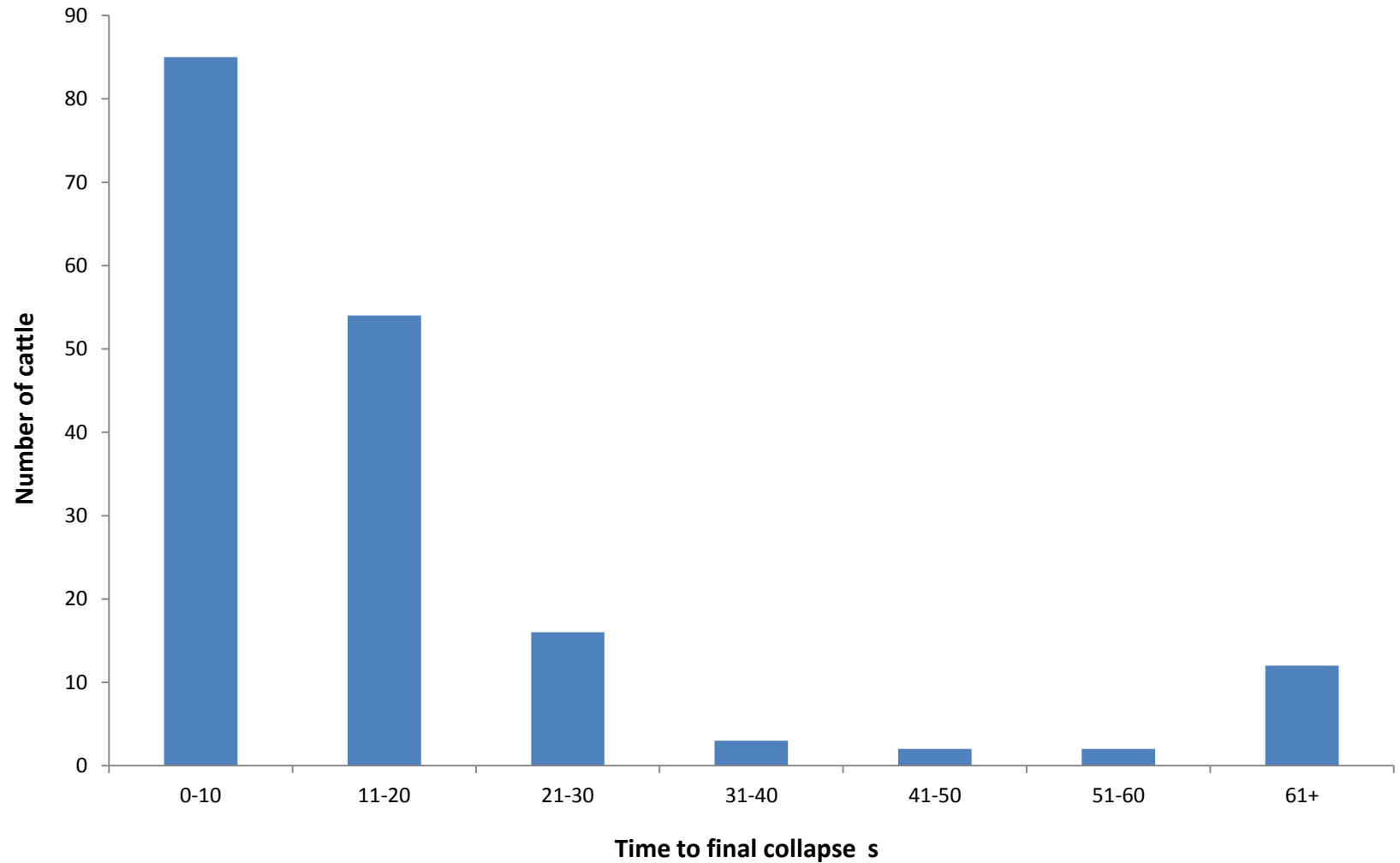
Conclusions

- ***10% of the cattle there was arrested flow within 10 s***
- ***6% of the cattle there was early arrested flow from both arteries***
- ***95% of the arteries that had early arrested flow had false aneurysms***
- ***90% of the arteries that had no early arrested flow had no false aneurysms***

3. Time to loss of consciousness

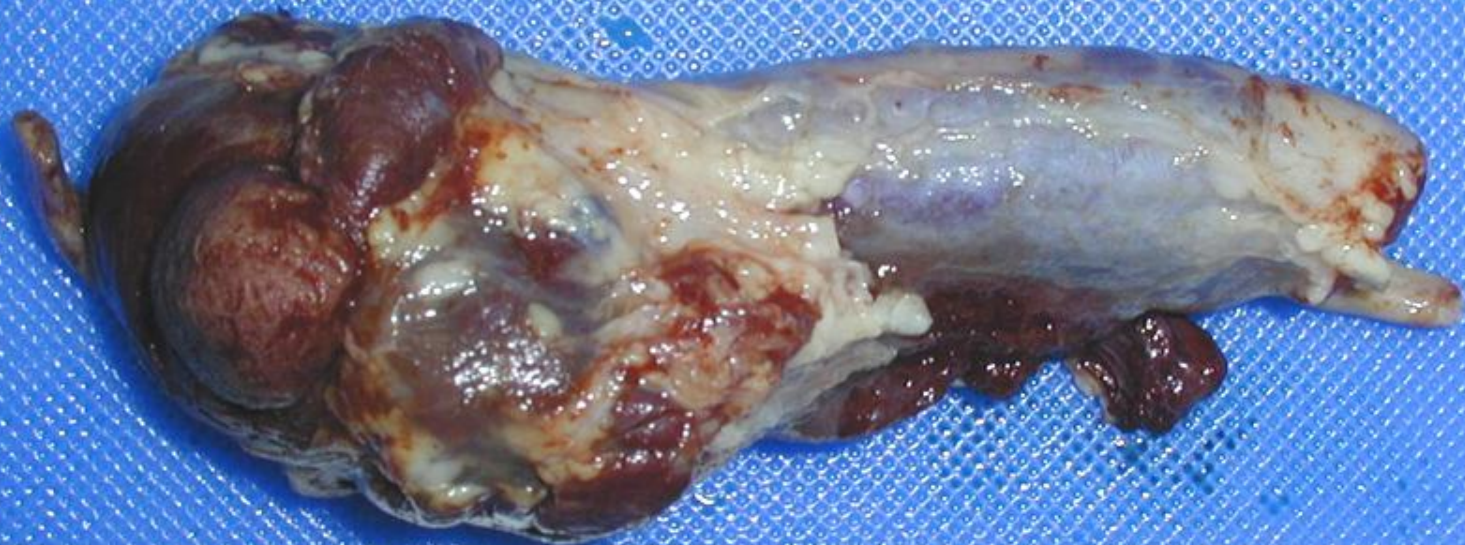
- 174 cattle slaughtered by halal method***
- experienced, competent halal slaughterman***
- released from the head yoke immediately after the cut***
- time to loss of consciousness assessed from time to collapse***

Time to collapse during halal slaughter without stunning

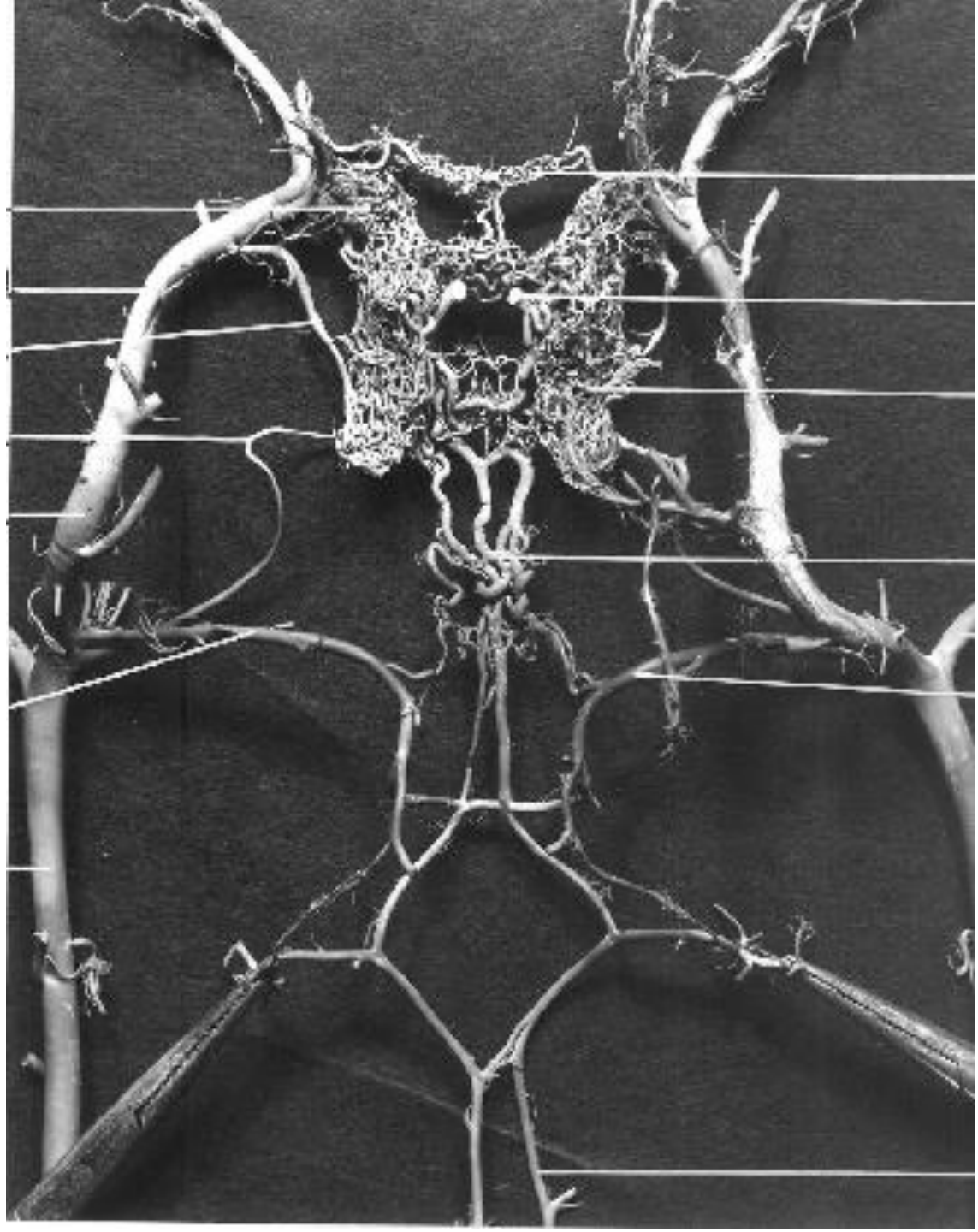


Conclusions

- ***average time to collapse was 20 s***
- ***8% of the cattle took longer than 60 s to collapse***
- ***14% collapsed and stood up again***
- ***cattle that took a long time to collapse had false aneurysms at the severed end of the carotid arteries***



Cattle have a well-developed vertebro-basilar plexus which allows collateral flow of blood to the brain, especially when the carotid route is occluded.



Effect of cutting position in the neck on arrested blood flow in halal slaughtered cattle

	Position of the cut in the neck		
	C1	Caudal to C1	<i>P</i> <
<i>Number of cattle</i>	66	60	
Number of cuts to the neck ± se (range)	4.6 ± 0.3 (3 to 10)	3.8 ± 0.4 (1 to 18)	
% carotid arteries in which blood flow stopped before 60 s	1	35	0.001
% cattle in which blood flow stopped in one or more arteries before 60 s	3	60	0.001
% cattle in which blood flow stopped from both carotid arteries before 60 s	0	13	0.01

Conclusion

- ***Cutting the neck at C1 can prevent false aneurysm formation and early arrest of blood flow***



Blood aspiration



Innervation of the respiratory tract

- *vagus nerve*
- *cervico-thoracic ganglion*
- *T₂-T₄ dorsal root ganglia*
- *cranial laryngeal nerve*
- *Xth cranial nerve*

Conclusions

- ***blood aspiration is common during slaughter without stunning (e.g. 19% of cattle slaughtered by shechita)***
- ***it could cause irritation of the respiratory tract before loss of consciousness***
- ***irritation from the URT could be reduced by performing a cut at the C1 position in the neck***

Overall conclusions

- ***there is lack of uniformity in the way the opening cut is performed***
- ***delayed unconsciousness, early arrest of blood flow through false aneurysm formation, and blood aspiration are complications***
- ***delayed unconsciousness might be avoided by performing the cut at the C1 position***
- ***complications from blood aspiration could be reduced by performing the cut at the C1 position***



Should Brasil make slaughter without stunning illegal ?

Discuss