Home-made model for training of basic ultrasound technique

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Contact person
Annelies Decloedt

Organisation
Name of the organisation Ghent University (UGent)
Department Veterinary skillslab
Country Belgium

SCOPE OF THE METHOD

<table>
<thead>
<tr>
<th>The Method relates to</th>
<th>Animal health</th>
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<tbody>
<tr>
<td>The Method is situated in</td>
<td>Education and training</td>
</tr>
<tr>
<td>Type of method</td>
<td>Other</td>
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</tbody>
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DESCRIPTION

Method keywords
veterinary medicine
skillslab training
ultrasound
dummy

Scientific area keywords
Veterinary education
clinical training

Method description

In the skillslab, dummy models and simulators are used for teaching various clinical skills. Basic experience of ultrasound technique and how to work with an ultrasound machine can be obtained using a basic model containing different 3D structures. An important part of this first training process can be performed on a simulator in the skillslab.

Lab equipment

Home-made basic model: a fluid-filled vacuum bag containing different 3D structures. The bag is placed in a small plastic container.

Method status

Still in development

History of use

Internally validated

PROS, CONS & FUTURE POTENTIAL

Advantages

The use of educational animal models in a skillslab offers a number of significant advantages:
- Reduced use of laboratory animals and reduced discomfort for patients, as procedures can be practised on dummy models and simulators before performing them on a live animal.
- Teaching of clinical skills in a quiet and safe environment, reducing anxiety and stress for the veterinary student.
- Complex practical skills can be split into a number of small steps when practising them in the skillslab.

Challenges

- Clinical training on live animals needed as well.
- Creating and repairing the home-made models is time consuming for a large group of students.
- A difficulty creating an ultrasound model is that air cannot be present in the bag (otherwise you have a lot of artefacts).

Modifications
Towards the future it will probably be attempted to create a more complex model with anatomically more realistic structures.

Future & Other applications
Training for lab animal medical imaging techniques.

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION