BSGE

BRITISH SOCIETY for GYNAECOLOGICAL ENDOSCOPY

Pecha Kucha Abstracts

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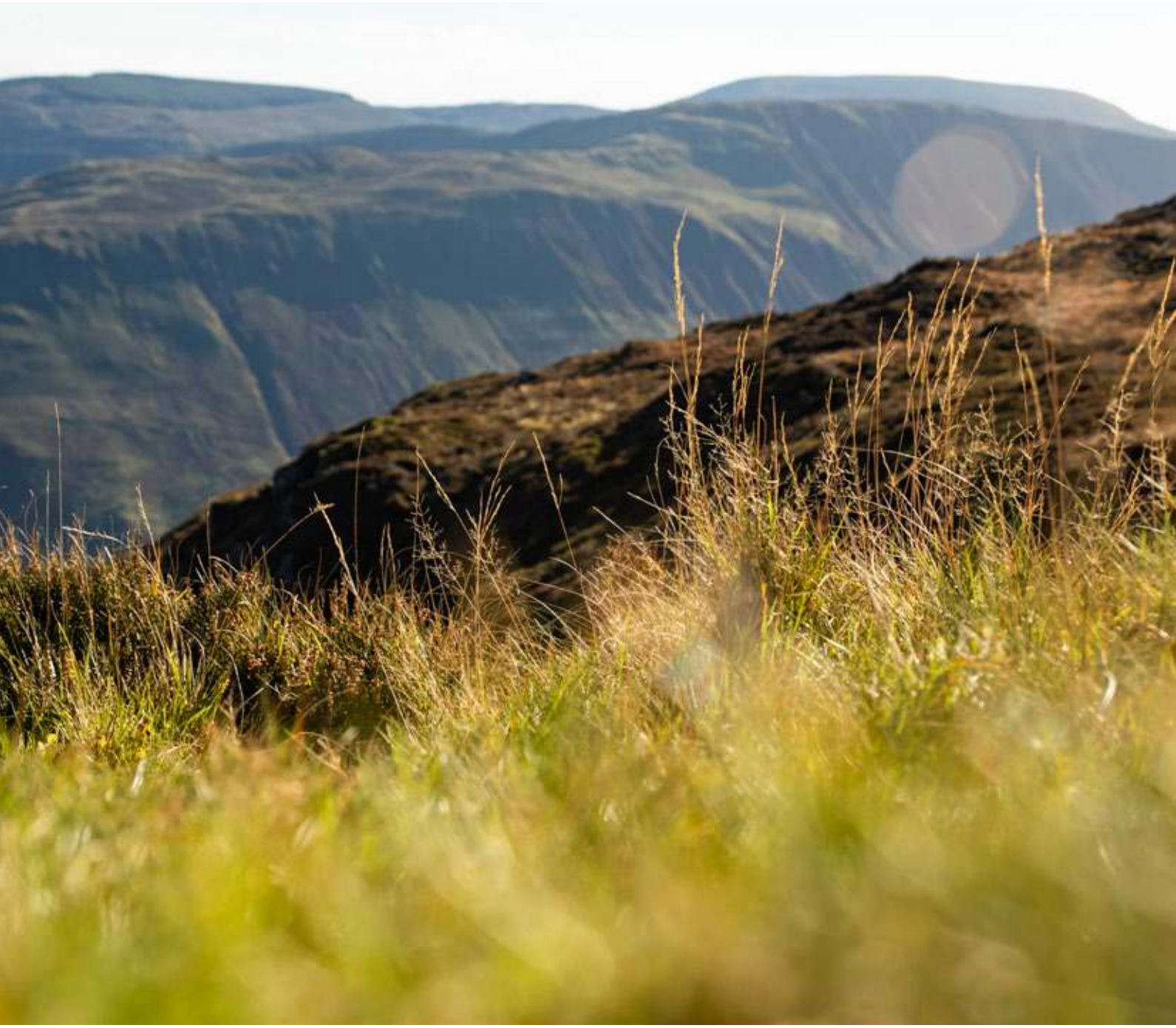

Please note: Abstracts are reproduced as submitted.

PK01

Debulking trans-cervical power morcellation: Innovative technique to enable vaginal retrieval of fibroid uterus after a laparoscopic hysterectomy

Mr Zaid Hasafa/ Mr Dominic Byrne
Royal Cornwall endometriosis Centre

Abstract

Introduction:

Laparoscopic hysterectomy is commonly employed to treat patients with symptomatic fibroids. Compared to laparotomy, laparoscopic hysterectomy decreases hospital stay and reduces intra-operative and postoperative risks. However, in order to remove the uterus from the abdominal cavity through laparoscopic ports, laparoscopic power morcellation is currently regarded as the method of choice.

Due to concerns regarding the increased risk of both benign and malignant cell dispersion within the peritoneal cavity, there has been a shift to contained morcellation. However, inserting a large morcellation bag through small ports can be challenging and time-consuming.

Methods:

We introduce a novel idea to reduce the size of the fibroid uterus by using a trans-cervical hysteroscopic shaver to core the uterine cavity. After completing laparoscopic hysterectomy, the cervix is pulled into the vagina and dilated to allow insertion of a larger version (e.g. 10-20 mm calibre) of the existing trans-cervical fibroid shaver. Subsequently, the uterine cavity can be hollowed out, under laparoscopic and hysteroscopic vision, without breaching the uterine serosa.

This coring technique can be performed on the anterior wall of the uterine body (away from the posterior wall of the pelvis and other viscera)to enhance safety. The uterus can then be rotated 180 degrees to core the posterior wall, aiming to reduce the size of the uterine body and successively retrieve the uterus vaginally.

Conclusion:

Compared to the current laparoscopic power morcellation, this technique is contained, efficient, user-friendly and potentially spares the need for morcellating the entire uterus, which would be time-saving.

PK02

'Virtual reality, haptics and metrics 'a way forward in simulation-based training.

Ms Smriti Kuntal
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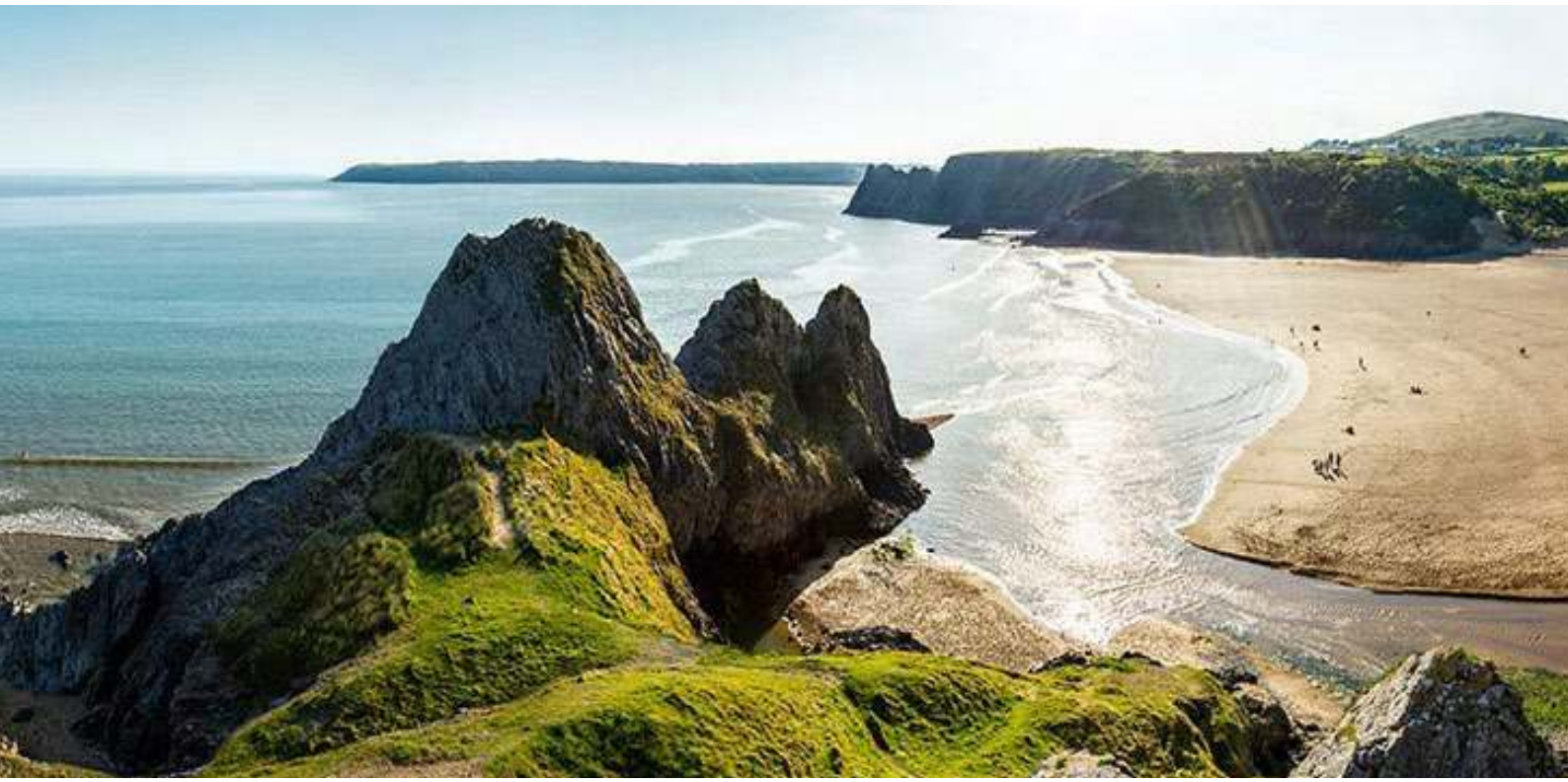
Abstract

Virtual reality – a term coined by Jaron Lanier not only incorporates auditory and visual but also sensory feedback like haptics which can boost the simulation training. A VR system needs VR engine, I/O device, user, software database and a task. A trainee could use an MRI or a CT scan to segment the area of interest which could be the ureter, nerve, vessel etc using free online resources as ITK snap/3D slicer. The final 3D segmented model could be smoothed and transferred onto the VR engine. Once the 3D model is placed inside the female avatar in the VR engine haptics from soft to hard could be added using Toia touch to give a real life feel to the 3D model. The metrics are vital for both developing and evaluating user performance and procedure accuracy-this being unique to robotics. The various options to metrics are-how the trainee moved the tool, position, orientation, velocity, acceleration, time to complete which could then be measured against a gold standard. One would need technical help with coding and creating a blue print for metrics. User performance data could be used for comparison against a gold standard or amongst peers. This when collected over a period of time for a given user can give a valuable feedback for the positive or negative changes and areas needing improvement. The metrics could be extrapolated in a clinical scenario to maintain a safe distance when dissecting a deep endometriotic nodule close to the vessel or ureter.



PK03

An end to numb thumb

Ceridwen Hayles, Elizabeth Bruen, Angharad Jones, Caryl Thomas, Richard Penketh
Institution(s): University Hospital of Wales Cardiff

Abstract

Neuropraxia of the digits, particularly the thumb, is a frequent complaint amongst laparoscopic surgeons, with ring-handled instruments being most commonly cited as the cause. Though recovery is often quick, it can take 6-8 weeks for the effects to fully subside and during this time function can be impaired. Indeed many surgeons will admit to always having a numb thumb indicating prolonged nerve damage

The digit holes of the ring handles of the laparoscopic instruments are one size and hard metal, which is particularly problematic for the large male hand.

Strategies for reducing the incidence of neuropraxia include good operating technique and ensuring the size of the rings on the handles are appropriate for the operator. Additionally the use of softer materials to line the contact surface would be an advantage.

Given the need to keep costs low, individualised instruments for each operating surgeon are not a practical solution. Silicone inserts of different internal dimensions that can be placed into the existing handles would adjust them to the correct size for each operator. Such inserts for existing handles are an option for the smaller hand but larger handle openings with inserts would be needed for glove size 8 or above. Colour coding the insert sizes would allow easy identification of the appropriate instrument to be used by each surgeon.

The team request uptake and further evaluation of this concept by instrument manufacturers so that laparoscopic surgeons can avoid thumb neuropraxia in the future.