Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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VIDEO ARTICLE

Minimal Access Gardening: Laparoscopic Techniques during Coronavirus Disease Lockdown

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ABSTRACT **Objective:** To demonstrate techniques of laparoscopic surgery while all elective procedures are suspended.

Design: Stepwise demonstration of key skills required when gardening with minimal access techniques.

Setting: Gynecologist residence in self-isolation, Manchester, United Kingdom.

Interventions: Owing to the coronavirus disease pandemic, elective operations are currently suspended in the United Kingdom. In addition, there have been concerns regarding the safety of laparoscopic surgery and risk of transmission of the coronavirus disease [1,2]. As a result, laparoscopic surgeons are at risk of skill deterioration, and it is uncertain whether this may have an impact on patient safety when lockdown measures are de-escalated.

Combining gardening, one of the major pastimes during the lockdown period, and minimal access surgical skills, this video demonstrates the different ways minimal access surgery may be applied to horticulture.

In the first described technique, what the author believes to be hedge bindweed (*Calystegia sepium*) was excised using a grasper and a tripolar cutting device (Fig. 1). For obvious reasons diathermy is not available within the home environment, but the retractable cutting blade was used to efficiently slice through the stems required for weed removal. The disadvantage of this technique is clearly that the unwanted species is likely to regrow in 12 months.

In the second described technique, dandelions (genus *Taraxacum*) (Fig. 2), which are native to Eurasia and North America, were excised at the flowering stage, thereby effectively preventing asexual reproduction by apomixis. The technique similarly uses the retractable blade of the tripolar cutting device.

The third technique demonstrates harvesting of an unknown species using a soil dissection technique. To facilitate complete removal of the plant and to reduce the risk of recurrence, the roots are carefully dissected out using blunt dissection. As with many techniques, patience is of paramount importance.

Last, ensuring hydration of plants is crucial to their early stage of development. Laparoscopic watering techniques are usually simplified when an irrigation and suction device is employed. However, within a low-resource setting a slow process of "cup feeding" is required and requires meticulous dexterity (Fig. 3). Unfortunately, during this demonstration a common complication of a loss of instrument occurred, but the subject was luckily successfully hydrated.

Conclusion: While a lockdown remains in place, many gynecologists are not able to maintain their laparoscopic surgical skills. It is important to combine activities of daily living with minimal access training to maintain our physical and mental well-being. More research is clearly needed in the area of minimal access horticulture to expand this new and exciting subspecialty. Journal of Minimally Invasive Gynecology (2021) 28, 22−23. Crown Copyright © 2020. Published by Elsevier Inc. on behalf of AAGL. All rights reserved.

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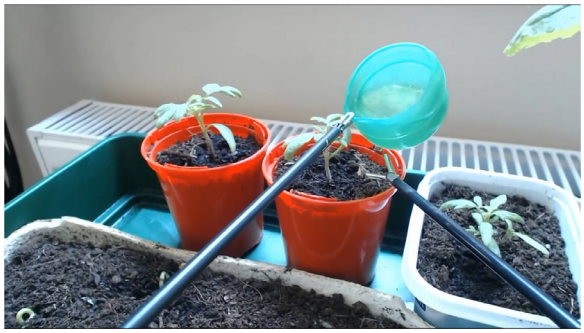

Supplementary materials

Supplementary material associated with this article can be found in the online version at https://doi.org/10.1016/j.jmig.2020.05.004.

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