

大林慈濟醫院腸胃內科

主 題：消化系同好會暨國際研討會實作工作坊/大林慈濟醫院

日 期：2020年10月18日(日) 08:30-12:30，共4小時。

地 點：大林慈濟醫院 內視鏡檢查室、換水大腸鏡學習中心

主辦單位：

協辦單位：大林慈濟醫院腸胃內科

| Time | Theme | Speaker | Moderator | Venue |
|-------------|---|--|--------------------|-----------|
| 08:30-08:50 | 報到 | | | |
| 08:50-09:00 | Opening | 曾國枝 部長 (大林慈濟醫院) | | 換水大腸鏡學習中心 |
| 09:00-09:30 | Prevention of colorectal cancer - habits, screening, adenoma detection rate and artificial intelligence | Felix W. Leung (Professor of Medicine in Residence, UCLA) | 謝毓錫 醫師 (大林慈濟醫院) | |
| 09:30-10:10 | Water exchange colonoscopy workshop | 謝毓錫 醫師 曾志偉 主任 (大林慈濟醫院) | 曾國枝 部長 (大林慈濟醫院) | |
| 10:10-10:30 | Water exchange and artificial intelligence - an innovation for colon polyp detection | 唐家沛 醫師 (大林慈濟醫院) | 曾志偉 主任 (大林慈濟醫院) | 換水大腸鏡學習中心 |
| 10:30-10:50 | Coffee Break | | | |
| 10:50-11:20 | Water exchange colonoscopy workshop | 謝毓錫 醫師 曾志偉 主任 (大林慈濟醫院) | 唐家沛 醫師 (大林慈濟醫院) | 內視鏡檢查室 |
| 11:20-11:40 | Difficult colonoscope insertion: the role of Water-assisted method | 曾志偉 主任 (大林慈濟醫院) | 洪宗興 主任 (大林慈濟醫院) | 換水大腸鏡學習中心 |
| 11:40-12:20 | Q & A | | | |
| 12:30 | Closing | | | |

Organizer: 大林慈濟醫院 肝膽腸胃科

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Workshop Registration Website:



<https://forms.gle/YXvm29wAhzg4CSX97>

大林慈濟醫院

消化系同好會暨國際研討會實作工作坊

時間：2020年10月18日(日) 08:30-12:30。

地點：大林慈院內視鏡室

講者：Felix W. Leung

講題：Prevention of colorectal cancer – habits, screening, adenoma detection rate and artificial intelligence.

摘要：For individuals, there are good habits that can reduce the risk of colon cancer. These include: more fruits, vegetables and whole grains, less red and processed meats, avoid preparing foods at high temperatures, limit or avoid alcohol, decrease or avoid smoking, avoid being overweight raises, and avoid sedentary lifestyle.

For the doctors, good screening strategies can help decrease the risks. Colonoscopy is a recognized screening method. Adenoma detection rate (ADR) is a quality indicator. Water exchange colonoscopy increases overall ADR, and performs better than accessories such as Endocuff or cap attach to the tip of the colonoscope when compared with usual air insufflation colonoscopy. Water exchange increases advanced ADR, right colon ADR, right colon flat polyp detection rate, right colon flat ADR, and sessile serrated ADR. These increased detection rates can potentially further reduce the risk of colon cancer.

Artificial intelligence (computer aided detection) could complement water exchange by detecting polyps overlooked by the colonoscopist either due to inexperience or inattention. Water exchange could complement artificial intelligence by salvage cleaning during insertion to enhance polyp exposure and reduce false alarms during withdrawal inspection.

A time line of evolution of water exchange method is shown in Table 1.

| Time line of evolution of WE method | |
|-------------------------------------|--|
| 2002 | Nursing shortage at Sepulveda VA, Veterans sent to WLAVA for sedation |
| 2002 | Veterans requested alternative, scheduled unsedated option offered |
| 2002-05 | 150 of 452 Veterans accepted, success was only 78%, limited by pain |
| 2006-07 | Consecutive groups: WE significantly ↓ pain and ↑ success |
| 2008-09 | RCT: (Sep VA) WE significantly ↓ pain; numerically ↑ ADR & AADR |
| 2010 | European Endoscopy Journal featured WE in Innovation Forum |
| 2014 | RCTs: WE significantly less painful (VANCHCS, China, Taiwan, Europe) |
| 2017 | RCTs: WE significantly ↑ ADR (China, Taiwan, Europe) |
| 2018- 19 | WE ↑ ADR in propofol sedated patient; in the right colon; WE ↑ AADR; WE ↑ SSP DR |
| 2019-20 | WE better than Endocuff and cap in increasing ADR and AADR |
| 2020 | WE better than Endocuff and cap in increasing SSADR |
| 2020 | WE and artificial intelligence complement each other |

講者：唐家沛

講題：Water exchange and artificial intelligence – an innovation for colon polyp detection

摘要：隨著國人飲食習慣逐漸西化，精緻化及外食頻率增加，大腸癌發生率有逐年上升和呈現年輕化的趨勢。伴隨著是每年大腸癌發生率及死亡人數快速創新高，現今已高居所有癌症的第一

位，更是癌症死亡率的第三名。積極尋找新的方法以找到大腸癌的前身大腸瘻肉，便成為大腸鏡專家們刻不容緩的首要任務。

換水大腸鏡為一創新的大腸鏡檢查方法。以注入水來協助大腸鏡的插入，並在插入時即將注入的水幾乎完全吸出，同時將因藥物清腸不完全之髒水一併清除而大幅增加清腸完整度。此換水法為一有效增加瘻肉可見度的技術，已在本內視鏡中心研究多年。在與傳統充氣法比較的隨機對照試驗相關論文中也證實可減少大腸鏡檢病患不適，大幅提高清潔度進而增加大腸瘻肉(腺瘤)發現率及病患滿意度。人工智慧電腦輔助大腸瘻肉偵測則是另一和換水大腸鏡並列美國期刊票選2019年十大研究進展胃腸內視鏡之熱門研究領域。此系統在大腸鏡檢查時以電腦輔助協助偵測瘻肉的新興方法近年來發展快速，且已有多篇隨機對照臨床試驗已證實可以增加腺瘤的發現率。然而，一個重要的限制是電腦偵測中所產生的偽影(例如殘留的糞便和氣泡)會引起虛假警報。本中心去年成功開發了大腸瘻肉電腦輔助偵測系統，並結合換水大腸鏡，兩者均可明顯提高瘻肉發現率。換水大腸鏡則可藉由改善大腸清潔度來增強電腦輔助偵測系統的功能，減少虛假警報。

本中心研究結果發現這二種方式有互補的作用，可產生最大的腺瘤檢出率，減少後續大腸癌的發生。

講者:曾志偉

講題: Difficult colonoscope insertion: the role of Water-assisted method

摘要: The difficult colonoscopy is considered as one in which it is challenging or impossible to reach the cecum. Difficult colonoscopy may be a common occurrence due to patient and endoscopist factors. Most patients with a prior incomplete colonoscopy can be colonoscoped successfully, if careful attention is paid to colon preparation, insertion technique, using a variety of scopes, colonoscopy methods and additional equipment. Water-assisted colonoscopy could facilitate completion of colonoscopy. While the use of air lengthens the colon and sharpens the angulations at flexures, water straightens the sigmoid segment and reduces the risk of loop formation. Water also reduces the risk of barotrauma. We will share our experiences in this speech.

講師簡歷

一、Felix W. Leung

現職

2013 - present Full-time Diagnostic and Therapeutic Endoscopist, West Los Angeles VAMC, VAGLAHS
1986 - present Full-time Gastroenterologist, Sepulveda VAMC, VAGLAHS

學歷

Yale College, New Haven, Connecticut, B.S. Administrative Sciences, 1974
Yale Medical School, New Haven, Connecticut, Doctor of Medicine, 1978

經歷

2002 - present Specialized in unsedated colonoscopy
2013 - present Full-time Diagnostic and Therapeutic Endoscopist, West Los Angeles VAMC, VAGLAHS
2010 - present Diagnostic and Therapeutic Endoscopist (part-time), Gastroenterologist, Physician, West Los Angeles VAMC, VAGLAHS
2006 - 2010 Diagnostic and Therapeutic Endoscopist, Gastroenterologist, Physician, Sepulveda Ambulatory Care Center & Nursing Home (ACCNH), VAGLAHS
1999 - 2010 Medical and Gastroenterology/ Endoscopy Attending, West Los Angeles VAMC
1998 - present Consultant Gastroenterology Attending, VA Bakersfield Outpatient Clinic
1998 - present Consultant Gastroenterology Attending, VA Santa Barbara Outpatient Clinic
1997 - present Chief of Gastrointestinal Motility, VA Sepulveda ACCNH
1996 - present Chief of Gastroenterology and Endoscopy, VA Sepulveda ACCNH
1995 - present Professor of Medicine in Residence, David Geffen School of Medicine at UCLA
1990 - present Member/Investigator, Center for Ulcer Research and Education (CURE)/UCLA Digestive Disease Research Center
1986 - present Principal Investigator, Gastrointestinal Blood Flow Research Laboratory, Sepulveda VAMC/ UCLA San Fernando Valley Program (SFVP)
1986 - 2006 Diagnostic and Therapeutic Endoscopist, Gastroenterologist, Physician, Sepulveda VAMC/UCLA SFVP
2001 - 2005 Chief, Hepatitis C Evaluation and Treatment Clinic, VA Sepulveda ACCNH
1994 - 1996 Acting Chief of Gastroenterology and Endoscopy, Sepulveda VAMC
1994 - 1996 Acting Director, Division of Gastroenterology, UCLA SFVP
1989 - 1995 Associate Professor of Medicine in Residence, UCLA School of Medicine
1988 - 1994 Member, Inflammatory Bowel Disease Center, UCLA
1986 - 1999 Diagnostic and Therapeutic Endoscopist, Gastroenterologist, Physician, Olive View Medical Center/UCLA SFVP
1986 - 1990 Investigator, CURE, UCLA
1984 - 1989 Assistant Professor of Medicine in Residence, UCLA School of Medicine
1983 - 1986 Affiliate Investigator, CURE, UCLA

專長

2004 - 2018 Water exchange colonoscopy

二、唐家沛 醫師(Tang, Chia-Pei Tang)

現職

2006- 大林慈濟醫院內科部胃腸科主治醫師

2019- 慈濟大學講師

學歷

1986/09 至 1993/07 Universidad Autonoma de Centro America 醫學系學士

2015/09 至 2017/06 國立中正大學企業管理學系碩士

2018/09- 國立中正大學企業管理學系博士

經歷

2000 – 2003 台北榮民總醫院內科部住院醫師

2003 – 2005 台北榮民總醫院胃腸科總醫師

專長

消化系醫學、內視鏡檢查、人工智慧、大數據

三、曾志偉 醫師

現職

- 2010- 大林慈濟醫院內科部胃腸科主治醫師
- 2018- 慈濟大學助理教授
- 2018- 大林慈濟醫院內科部副部長
- 2017- 大林慈濟醫院腸胃內科主任

學歷

1994/06 至 2001/06 國立陽明大學大學醫學系學士

經歷

- 2008-2010 台北榮民總醫院內科部住院醫師
- 2006-2008 台北榮民總醫院腸胃肝膽科總醫師
- 2008-2010 嘉義榮民醫院內科部主治醫師
- 2008-2010 國立陽明大學兼任講師
- 2011-2017 慈濟大學兼任講師
- 2013-2017 大林慈濟醫院一般內科主任

專長

一般胃腸肝膽科、慢性肝炎、治療性內視鏡、內視鏡超音波