## Natural Orifice



## Transvaginal Endoscopic Surgery

## Daniel A. Tsin, MD. Long Island City, New York, USA



## From Hybrids To Pure

1998 - A team of general surgeons and gynecologists from The Mount Sinai Hospital of Queens (MSHQ) began using Culdolaparoscopy, a Minilaparoscopy Assisted Natural Orifice Surgery (MANOS) combining operative culdoscopy with minilaparoscopy in oophorectomies, myomectomies, ovarian cystectomies and appendectomies. Fig 1-2



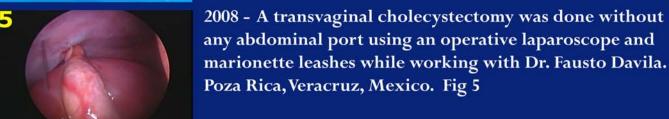
1999 - Vaginal access was done under minilaparoscopic surveillance, posterior colpotomy or during vaginal hysterectomy. Transvaginal cholecystectomies were done at (MSHQ) in 1999. Fig 3



2001 - A liver biopsy was done during an oophorectomy while working with Dr. Eduardo Bumaschny. Buenos Aires, Argentina.



2007 - A gastroscope with flexible instruments was used for the removal of the gallbladder while working with Dr. Nestor Gomez. Guayaquil, Ecuador.



2008 - The use of magnets was introduced in our surgeries while working with Dr. Guillermo Dominguez. Poza Rica, Veracruz, Mexico. Fig 4



In the last ten years, I participated in 130 cases with good results. We encountered one complication, a case of drug related fever. Transvaginal NOTES was awakened by a technology aimed to facilitate this access. MANOS offers a safe step in the learning curve for a more pure form of NOTES.