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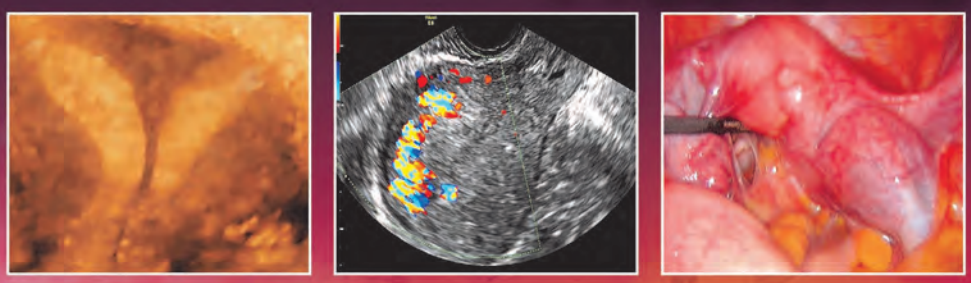
Illustrated Obstetrics and Gynecology Problems



Sireesha Y Reddy
Melissa D Mendez
Sanja Kupesic Plavsic

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Illustrated
Obstetrics and Gynecology Problems

Sireesha Y Reddy MD
Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
Texas Tech University Health Sciences Center (TTUHSC) El Paso
El Paso, Texas, USA

Melissa D Mendez MD
Associate Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
Texas Tech University Health Sciences Center (TTUHSC) El Paso
El Paso, Texas, USA

Sanja Kupesic Plavsic MD PhD
Professor
Department of Obstetrics and Gynecology
Associate Dean of Faculty Development
Director, Center for Advanced Teaching and Assessment in Clinical Simulation (ATACS)
Paul L Foster School of Medicine
Texas Tech University Health Sciences Center (TTUHSC) El Paso
El Paso, Texas, USA

JAYPEE BROTHERS MEDICAL PUBLISHERS
The Health Sciences Publisher
New Delhi | London

Jaypee Brothers Medical Publishers (P) Ltd

Headquarters

Jaypee Brothers Medical Publishers (P) Ltd
4838/24, Ansari Road, Daryaganj
New Delhi 110 002, India
Phone: +91-11-43574357
Fax: +91-11-43574314
Email: jaypee@jaypeebrothers.com

Overseas Office

J.P. Medical Ltd
83 Victoria Street, London
SW1H 0HW (UK)
Phone: +44 20 3170 8910
Fax: +44 (0)20 3008 6180
Email: info@jpmedpub.com

Website: www.jaypeebrothers.com
Website: www.jaypeedigital.com

Illustrated Obstetrics and Gynecology Problems

First Edition: **2020**

ISBN: 978-93-5270-495-8

Printed at

Contributors

Ann M Dobry DO
Resident
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Carla Martinez MD
Assistant Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Christopher Ortiz DO
Resident
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Dhyana Velasco MD
Resident
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Diego Ramirez MD
Resident
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Heather Pugmire MD
Department of Obstetrics and Gynecology
Bingham Memorial Hospital
Blackfoot, Idaho, USA

Humera Chaudhary MD
Assistant Professor
Department of Radiology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Kathleen Green MD
Assistant Professor
Department of Obstetrics and Gynecology
University of Florida
Gainesville, Florida, USA

Luis S Noble MD
Clinical Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Mary Traci Groening MD
Instructor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Melissa D Mendez MD
Associate Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Naima Khamsi MD
Instructor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Osvaldo Padilla MD
Assistant Professor
Department of Pathology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Robert W Vera MD
Associate Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Safa Farrag MD
Assistant Professor
Department of Internal Medicine
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Sanja Kupesic Plavsic MD PhD
Professor
Department of Obstetrics and Gynecology
Associate Dean of Faculty Development
Director, Center for Advanced Teaching and Assessment in Clinical Simulation (ATACS)
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Shaked Laks MD
Assistant Professor
Department of Radiology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Sireesha Y Reddy MD
Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Sushila Arya MD
Assistant Professor
Department of Obstetrics and Gynecology
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Ulrich Honemeyer MD PhD
Professor
Fetal Medicine and Genetics Center
Dubai, UAE

Vladimir Sparac MD PhD
Assistant Professor
Dubrovnik International University
Split, Croatia, EU

Wael El-Mallah MD
Assistant Professor
Department of Internal Medicine
Paul L Foster School of Medicine
TTUHSC El Paso
El Paso, Texas, USA

Preface

Illustrated Obstetrics and Gynecology Problems provides an opportunity to the physicians in training and practicing and medical students, to go through common scenarios in obstetrics and gynecology practice and gain longitudinal experience with 60 virtual patients. This book addresses wide differential diagnosis concerns and workups for common presentations of obstetrics and gynecology patients.

The use of consistent formatting enables easy assessment of patients' chief complaints, history and investigations. Clinical questions section aims to provide answers for optimal diagnostic, treatment and care management strategies. Each case discussion ends with Take-home messages, summarizing important case-specific concepts in a succinct format. All case studies contain a short list of most relevant up-to-date references.

We believe that the use of this book will allow different levels of learners to improve their clinical knowledge and reasoning, as well as update their diagnostic and management skills. We hope that this book will assist medical students, residents and practicing physicians to more efficiently master the learning material for their boards and recertification examinations.

Good luck for your examinations and practice!

Sireesha Y Reddy
Melissa D Mendez
Sanja Kupesic Plavsic

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GYNECOLOGY

Section 2
OBSTETRICS

Abbreviations

ACC	American College of Cardiology
ACOG	American College of Obstetricians and Gynecologists
ADHD	Attention deficit hyperactivity disorder
AFC	Antral follicle count
AFLP	Acute fatty liver of pregnancy
AFP	Alpha fetoprotein
AHA	American Heart Association
ALT	Alanine transaminase
AMH	Anti-Müllerian hormone
ANCS	Antenatal corticosteroids
ARDS	Adult respiratory distress syndrome
ART	Assisted reproductive technology
ASCCP	American Society for Colposcopy and Cervical Pathology
ASCUS	Atypical cells of undetermined significance
ASRM	American Society for Reproductive Medicine
AST	Aspartate transaminase
BMD	Bone mineral density
BMI	Body mass index
BOT	Borderline ovarian tumors
BP	Blood pressure
BPP	Biophysical profile
BTL	Bilateral tubal ligation
CA-125	Cancer antigen 125
CBC	Complete blood count
CBD	Common bile duct
CC	Clomiphene citrate
CDC	Center for Disease Control and Prevention
CEA	Carcinoembryonic antigen
CGD	Complicated gallstone disease
CIN	Cervical intraepithelial neoplasia
CKC	Cold knife cone biopsy
CL	Cervical length
CMP	Comprehensive metabolic panel
CO_2	Carbon dioxide
COS	Controlled ovarian stimulation
CREST	Collaborative Review of Sterilization Study
CRL	Crown rump length
CRP	C-reactive protein
CRS	Caudal regression syndrome
CS	Cesarean section
CT	Computed tomography

CTA	Computed tomographic angiography
CUS	Compression ultrasonography
CV	Cardiovascular
CVA	Costo-vertebral angle
CXR	Chest X-ray
D&C	Dilatation and curettage
DIC	Disseminated intravascular coagulopathy
DM	Diabetes mellitus
D5NS	Dextrose 5% in normal saline (0.9%)
DVT	Deep venous thrombosis
DXA	Dual energy X-ray absorptiometry
E2	Estradiol
EGF	Epidermal growth factor
EM	Emergency medicine
EOMI	Extraocular movement intact
ER	Emergency room
ERCP	Endoscopic retrograde cholangiopancreatogram
ESR	Erythrocyte sedimentation rate
ETOH	Ethanol or ethyl alcohol
EUS	Endoscopic ultrasound
FDA	Food and Drug Administration
FHT	Fetal heart tracing
FNA	Fine needle aspiration
FRAX	Fracture risk assessment tool
FSH	Follicle stimulating hormone
G	Gram
GGT	Gamma-glutamyl transpeptidase
GI	Gastrointestinal
GIS	Gel instillation sonography
GnRH agonists	Gonadotropin releasing hormone agonists
G/P	Gravida/para
GTD	Gestational trophoblastic disease
GU	Genito-urinary
Hb	Hemoglobin
HCG	Human chorionic gonadotropin
HCT	Hematocrit
HD	High definition
HDL	High density lipoproteins
HEENT	Head, Eyes, Ears, Nose and Throat
HELLP	Hemolysis (H), elevated liver enzymes (EL), low platelet count (LP)
HIT	Heparin induced thrombocytopenia
HIV	Human immunodeficiency virus
HPV	Human papilloma virus
Hr	High-risk
HRT	Hormonal replacement therapy
HSG	Hysterosalpingogram
ICP	Intrahepatic cholestasis of pregnancy

ICSI	Intracytoplasmatic sperm injection
IGF	Insulin like growth factor
IL-6	Interleukin-6
IM	Intramuscularly
IV	Intravenous
IVF/ET	*In vitro* fertilization/Embryo transfer
IU	International unit
IUCD	Intrauterine contraceptive device
IUD	Intrauterine device
IUGR	Intrauterine growth restriction
IUI	Intrauterine insemination
IUP	Intrauterine pregnancy
LDL	Low density lipoproteins
LEEP	Loop electrosurgical excision procedure
LFT	Liver function tests
LH	Luteinizing hormone
LLETZ	Large loop excision of the transformation zone
LLQ	Left lower quadrant
LMP	Last menstrual bleeding
LMWH	Lower molecular weight heparin
LNG-IUD	Levonorgestrel IUD
LOD	Laparoscopic ovarian drilling
LS	Lichen sclerosus
LTCS	Low transverse cesarean section
LUQ	Left upper quadrant
MC	Menstrual cycle
MMR	Measles, Mumps, Rubella
MPA	Medroxyprogesterone acetate
MRI	Magnetic resonance imaging
MRV	Magnetic resonance venogram
MTX	Methotrexate
NKDA	Not known drug allergies
NOF	National Osteoporosis Foundation
NPO	Nothing per os
NSAIDs	Nonsteroidal anti-inflammatory drugs
NST	Non-stress test
NSVD	Normal spontaneous vaginal delivery
NYHA	New York Heart Association
OB	Obstetrical
OCP	Oral contraceptive pills
OHSS	Ovarian hyperstimulation syndrome
OR	Operating room
P	Pulse
PCOS	Polycystic ovarian syndrome
PCS	Pelvic congestion syndrome
PDGF	Platelet derived growth factor
PE	Pulmonary embolism

PE	Physical exam
PEP	Persistent ectopic pregnancy
PET	Positron emission tomography
PID	Pelvic inflammatory disease
PNV	Prenatal vitamins
PPROM	Preterm premature rupture of membranes
PROM	Premature rupture of membranes
PTH	Parathyroid hormone
RAI	Radioactive iodine
RLQ	Right lower quadrant
ROS	Review of systems
RPD	Renal pelvic diameter
RPOC	Retained products of conception
RR	Respiratory rate
RUQ	Right upper quadrant
SAb	Spontaneous abortion
SERM	Selective estrogen receptor modulator
SIS	Saline infusion sonohysterography
SOB	Shortness of breath
STD	Sexually transmitted disease
STI	Sexually transmitted infection
SVD	Spontaneous vaginal delivery
SVE	Sterile vaginal exam
3D	Three-dimensional
T	Temperature
TCE	Transcatheter embolization
TGF	Transforming growth factor
TOA	Tubo-ovarian abscess
TSH	Thyroid stimulating hormone
TV US	Transvaginal ultrasound
UAE	Uterine artery embolization
UDCA	Ursodeoxycholic acid
US	Ultrasound
US	The United States
USPTF	United States Preventive Services Task Force
UTI	Urinary tract infection
VACTERL	Disorder consisting of vertebral defects, anal atresia, cardiac defects, tracheo-esophageal fistula, renal anomalies and limb abnormalities
VEGF	Vascular endothelial growth factor
V/Q	Ventilation-perfusion scan
VTE	Venous thromboembolism
WBC	White blood cell counts
WHO	World Health Organization
WNL	Within normal limits

SECTION 1

GYNECOLOGY

Section Outline

CHAPTER

Well-woman Examination

1

Melissa D Mendez, Osvaldo Padilla

CLINICAL CASE

KB is a 30-year-old G3P2 who presents to your office for a well-woman examination. She states that her periods were previously regular, every month and now she has not had a period in 6 months. She uses a Mirena IUD for contraception which you placed last year after the birth of her last baby and she is happy with the result. Her last Pap smear was 2 years ago and it was negative. She did not have an HPV test at that time. She was vaccinated against HPV about 5 years ago. She has not needed a mammogram or breast ultrasound for any reason. She has not had her cholesterol or thyroid checked. Her last HIV examination was last year, during her last pregnancy.

Menarche: Age 13.

Menses: 28/5.

LMP: 6 months ago.

Pregnancy: One miscarriage at 8 weeks requiring dilation and curettage. Two full term spontaneous vaginal deliveries, the last one complicated by preeclampsia without severe features.

Sexual history: In a monogamous relationship with her husband of 6 years. She denies a history of sexually transmitted diseases.

Contraception: Mirena IUD.

Review of Systems

- No chest pain or shortness of breath
- No diarrhea or constipation
- No urinary frequency, no hematuria or dysuria.

Past medical history: Noncontributory.

Past surgical history: Noncontributory.

Vaccines: Up to date.

Current medications: Multivitamin.

Allergies: No known drug allergies.

Social history: She does not smoke, no drug use, and no alcohol use.

Family history: Noncontributory.

Physical Examination

Vital signs: T 37.2°C oral, BP 123/73, P 83, BMI 25.

Cardiac examination: Regular rate and rhythm.

Chest examination: Lungs clear to auscultation bilaterally.

Abdomen: Nondistended, non-tender, no hepatosplenomegaly.

Extremities: No edema, 2+ pulses felt bilateral lower extremities.

Vaginal examination: Vaginal walls appear pink with rugae. Cervix appears normal, no discharge, no strings seen at os.

Bimanual examination: Uterus anteverted 8 weeks size, nontender, mobile. Adnexa have no masses, are nontender.

Pap smear results: Normal, as shown in Figure 1.1, and a negative human papillomavirus test.

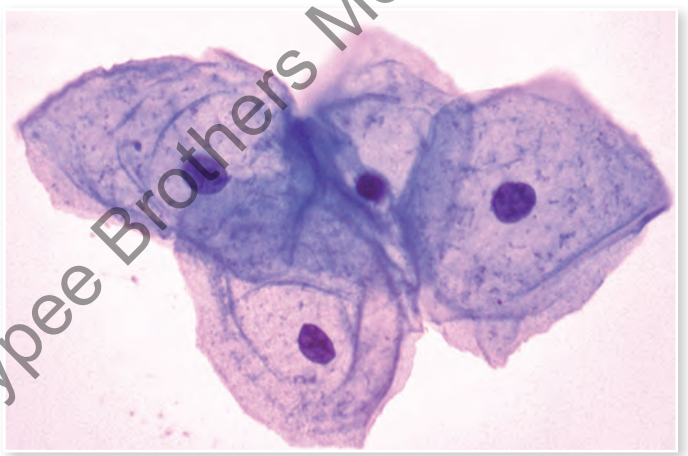

Figure 1.1: A normal Pap smear

CLINICAL QUESTIONS

1. What screening examinations are appropriate during a well woman examination?

Ans. Well women care guidelines are based on age. The age groups are: adolescents (13–18 years); reproductive-aged women (19–45 years); mature women (46–64 years), and women older than age 64. The American College of Obstetrics and Gynecology (ACOG) most recently updated their guidelines for well women care in 2015.[1] Patients should have a

blood pressure and weight or body mass index (BMI) assessed. Patients aged 21 and older should have a pelvic examination if they have menstrual disorders, vaginal discharge, infertility or pelvic pain.[1] A bimanual examination is indicated for any procedures, such as an endometrial biopsy or IUD insertion. The decision to perform a full pelvic examination in asymptomatic women should be determined between the patient and her physician. A clinical breast examination is recommended to be performed every 1–3 years.[2] The patient can be offered cholesterol screening as needed. A discussion about diet and exercise to prevent obesity and cardiovascular disease should also take place.[3]

2. What are the current guidelines to screen for cervical cancer?

Ans. The current guidelines set forth by ACOG and American Society for Colposcopy and Cervical Pathology (ASCCP) are to begin screening for cervical cancer with Pap smears at age 21. A screening Pap smear should be obtained every 3 years through age 29.[2] A screening Pap smear test can be obtained at 5-year intervals in women who are age 30–65 with both a negative Pap smear and negative HPV test.[2]

3. What vaccines are appropriate during a well woman examination?

Ans. Each patient should be offered the appropriate vaccines based on risk factors and age group. If you choose not to stock all vaccines, you should be able to refer the patient to another provider or the local health department for the appropriate vaccines. The influenza vaccine should be given to all persons six months and older on a yearly basis.[4] Adults should also receive the tetanus, diphtheria, and pertussis vaccine at least once during their adulthood and during pregnancy after 28 weeks. A tetanus booster should be given every 10 years. Measles, mumps, rubella booster should be given in the preconception period at least three months prior to conception if the original vaccine has been shown to no longer be effective. Based on risk factors, the patient may also qualify for meningococcal, hepatitis A and hepatitis B vaccines.[5]

4. What is the management of a lost IUD?

Ans. One study suggests there is about a 10% rate of malpositioning of an IUD once placed. Symptoms associated with a malpositioned IUD are pain, irregular bleeding, pregnancy and suspected adenomyosis.[6] Once you suspect an IUD is misplaced, you may choose to visualize with either 2D or 3D ultrasound. 3D ultrasound has been shown to better visualize the IUD arms in the coronal view.[7] Retraction of the strings is the most common cause of missing strings. You can attempt to locate retracted IUD strings with a cytobrush or hook placed gently into the cervical os to sweep the strings from the endocervix.[8]

TAKE-HOME MESSAGES

- Guidelines for well women screening are grouped according to age. These age groups are: adolescents (13–18 years); reproductive-aged women (19–45 years); mature women (46–64 years), and women older than age 64.[1]
- Patients should have a blood pressure and weight or BMI assessed. Patients aged 21 and older should have a pelvic examination if they have menstrual disorders, vaginal discharge, infertility or pelvic pain.[1]
- A clinical breast examination is recommended to be performed every 1–3 years.[2]
- The patient can be offered cholesterol screening as needed.[2] Diet and exercise to prevent obesity and cardiovascular disease should also be discussed.[3]
- Cervical cancer screening with Pap smears should begin at age 21. A screening Pap smear should be obtained every 3 years through age 29.[2]

- A screening Pap smear test can be obtained at 5-year intervals in women who are age 30–65 with both a negative Pap smear and negative HPV test.[2]
- The influenza vaccine should be given to all persons six months and older on a yearly basis.[4]
- Adults should also receive the tetanus, diphtheria, pertussis vaccine at least once during their adulthood and during a pregnancy after 28 weeks.[4] A tetanus booster should be given every 10 years.[4]
- Measles, mumps, rubella booster should be given in the preconception period at least three months prior to conception if the original vaccine is shown to be ineffective.[4]

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- Assists medical students, residents and practicing physicians to more efficiently master the learning material for their boards and recertification examinations

Sireesha Y Reddy MD is Professor, and Chairperson of the Department of Obstetrics and Gynecology, with a secondary appointment in pediatrics at Texas Tech University Health Sciences Center El Paso, Texas, USA. She is a board-certified obstetrician and gynecologist who trained at Columbia University, College of Physicians and Surgeons and at the University of Rochester for medical school and residency training, respectively. Her clinical focus is in the care of pediatric and adolescent gynecology patients who have unique conditions that require specialized medical evaluation and surgical management.

Melissa D Mendez MD is an Associate Professor, Department of Obstetrics and Gynecology, Texas Tech University Health Sciences Center El Paso, Texas, USA. She obtained her medical degree from the College of Medicine, University of California in Irvine, California. She is board-certified Obstetrician and Gynecologist.

She is involved in research, teaching and patient care. Her areas of interest are adolescent gynecology and medical education.

Sanja Kupesic Plavsic MD PhD is Professor and Associate Academic Dean, Paul L Foster School of Medicine at Texas Tech University Health Sciences Center El Paso, Texas, USA. She is considered an acclaimed expert in the field of Obstetrics, Gynecology and Infertility. She has published 214 peer reviewed journal articles, 486 chapters, edited/coedited 22 books, four slide atlases, and two video tapes and five educational DVDs. Her major research interests include ultrasound in human reproduction and medical education.

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ISBN 978-93-5270-495-6