Contents

Contributors, xi
Preface, xxii
How to use this book, xxiii

Section 1: Counseling and preparation phase
1 Risk of cancer from ovarian stimulation, 3
   Nikos Kanakas, Miltiadis Pitsos and Themis Mantzavinos
2 Risk of early menopause following IVF treatment, 7
   Sesh Kamal Sunkara
3 The HIV positive female, 9
   Joshua U. Klein and Mark V. Sauer
4 The HIV positive male, 13
   Mark V. Sauer and Joshua U. Klein
5 The hepatitis B/C carrier patient, 17
   Suzanne P.M. Lutgens, I.H.M. Van Loo, E.C.M. Nelissen and
   G.A.J. Dunselman
6 The patient with cystic fibrosis, 21
   Tarek El-Toukhy
7 The patient on medication, 25
   Arri Coomarasamy
8 The patient with thrombophilia, 29
   Ying C. Cheong and N.S. Macklon
9 The patient with autoimmune disorders, 34
   José Bellver
10 The patient with malignant disease: fertility preservation, 38
    Arri Coomarasamy
11 The patient with heart disease, 43
    Natasha Thorogood and Catherine Nelson-Piercy
12 The patient with diabetes, 48
    Neelam Potdar and Justin C. Konje
13 The patient with thyroid disease, 51
    Shiao Chan
14 The patient with hyperprolactinemia, 56
    John Ayuk
CONTENTS

15 The patient with polycystic ovaries, 61
   Adam H. Balen

16 The renal transplant patient and IVF, 65
   Lynne Robinson and Clara Day

17 The patient with previous pelvic irradiation, 69
   Vishvanath C. Karande

18 Fertility after chemotherapy, 73
   Nivedita Reddy

19 The patient with abnormal cervical cytology, 77
   Mahmood I. Shafi

20 The patient with previous borderline ovarian tumor, 80
   Arri Coomarasamy and Kavita Singh

21 The patient with an endometrioma, 83
   Luciano G. Nardo and Oybek Rustamov

22 The patient with cervical stenosis, 86
   Khalidoun Sharif

23 Vaccination and ART, 90
   Arri Coomarasamy and Dukaydah van der Berg

24 The patient with hydrosalpinx, 95
   Annika Strandell

25 The patient with poor ovarian reserve, 99
   Scott M. Nelson

26 The patient with congenital uterine anomalies, 105
   Sarah Creighton and Lina Michala

27 The patient with congenital cervico-vaginal anomalies, 109
   Sarah Creighton and Lina Michala

28 The patient with uterine fibroids, 112
   Haitham Hamoda and Yakoub Khalaf

29 The patient with previous Essure® sterilization, 115
   T. Justin Clark

30 The patient with previous endometrial ablation, 119
   T. Justin Clark

31 The couple with recurrent implantation failure, 124
   Tarek El-Toukhy

32 The patient with previous uterine artery embolization, 128
   Haitham Hamoda and Yakoub Khalaf

33 Endometrial polyp detected during ART treatment, 131
   Arri Coomarasamy

34 The obese patient, 135
   Mostafa Metwally and Bolarinde Ola
CONTENTS

35 Asherman syndrome, 139
   Dan Yu, Enlan Xia and T.C. Li
36 The older patient, 142
   William Ledger
37 Requests for mild or natural cycle IVF treatment, 146
   Brad B. Swelstad and Suheil J. Muasher
38 The ART patient with psychosexual problems, 150
   Sue Elkin
39 The patient needing third-party reproduction, 153
   Madhurima Rajkhowa
40 Request for “social egg freezing”, 159
   Valerie L. Peddie and Siladitya Bhattacharya
41 The patient with bariatric surgery, 165
   Zaher O. Merhi and Harry J. Lieman

Section 2: Pituitary suppression and ovarian stimulation phase

42 Poor response during ovarian stimulation, 171
   Lynne Robinson and Arri Coomarasamy
43 Ovarian stimulation for IVF in a patient with previous severe ovarian
   hyperstimulation syndrome, 175
   Khaldoun Sharif
44 Unable to achieve pituitary down-regulation, 178
   K. Jayaprakasan and Nick Raine-Fenning
45 The patient discovered pregnant during pituitary down-regulation, 184
   Mohammed Khairy Mahmoud and Arri Coomarasamy
46 Ovarian cysts following pituitary down-regulation, 188
   Alison Taylor
47 Poor endometrial development, 192
   Lynne Robinson and Arri Coomarasamy
48 Missed IVF medications, 201
   Lynne Robinson and Arri Coomarasamy
49 The patient with a history of estrogen-receptor positive cancer, 205
   Murat Sönmez and Kutluk Oktay
50 The patient over-responding to controlled ovarian stimulation during IVF, 208
   Khaldoun Sharif

Section 3: Oocyte retrieval

51 General anesthesia or sedation for oocyte retrieval?, 215
   Andrew F. Malins
CONTENTS

52 Delayed oocyte retrieval, 219
Khaldoun Sharif

53 Empty follicle syndrome, 223
George Ndubwe

54 Bleeding following oocyte retrieval, 227
Annika K. Ludwig and Barbara Sonntag

55 To flush or not to flush follicles at oocyte retrieval?, 232
Micah J. Hill and Eric D. Levens

56 Inaccessible ovaries at oocyte retrieval, 236
Hazem Al-Rumaih

57 Endometriotic cysts at oocyte retrieval, 239
Graciela Kohls and Juan A. García-Velasco

Section 4: Embryo transfer

58 Couple splitting while embryos are in storage, 245
Masoud Afnan

59 Endometrial cavity fluid identified during IVF treatment, 249
Arri Coomarasamy

60 Difficult embryo transfer, 252
Khaldoun Sharif

61 Excessive cervical mucus and retained embryo at embryo transfer, 257
Hassan N. Sallam, Ahmed F. Galal and Fady S. Moeity

62 Life after embryo transfer, 261
Kelton Tremellen

Section 5: The luteal phase

63 Vaginal bleeding in the luteal phase after IVF, 267
Carol Coughlan and Bolarinde Ola

64 Pelvic infection after IVF, 271
Muhammad Faisal Aslam

65 The patient presenting with ovarian hyperstimulation syndrome, 274
Khaldoun Sharif

66 Adnexal torsion after IVF, 279
Saioa Torrealday and Beth W. Rackow

67 Exposure to infection in the luteal phase of IVF, 283
Litha Pepas and Arri Coomarasamy

Section 6: The ART laboratory

68 Total failure of fertilization after conventional IVF - rescue ICSI, 291
A. Albert Yuzpe
CONTENTS

69 Couples not wishing to create surplus embryos in IVF, 296
  Hosam Mohamed

70 Aneuploidy screening for advanced maternal age or repeated IVF failure, 300
  Haitham Hamoda and Yacoub Khalaf

71 Choosing an embryo for transfer, 304
  Denny Sakkas

72 Globozoospermia, 308
  Steven Mansell, Anne Rice, Catherine Beaton and Christopher
  L.R. Barratt

73 Total failure of fertilization after ICSI, 313
  Kaoru Yanagida

74 Refreezing of embryos, 317
  Jerome H. Check

75 Infection in embryo culture medium, 320
  Peter M.M. Kastrop

76 ICSI or IVF in nonmale-factor infertility?, 324
  Mohamed Aboulghar

77 The ART program during a natural or human-made disaster, 328
  Richard P. Dickey and Carla White

78 Using the wrong sperm or embryos in IVF, 331
  Khaldoun Sharif and Mutaz Al-Abmad

Section 7: The male patient

79 Unexpected inability to produce a semen sample on the day of
  oocyte retrieval, 337
  Khaldoun Sharif

80 The azoospermic patient, 340
  Khaldoun Sharif

81 ART in men with Klinefelter syndrome, 344
  Ronnie G. Fine and Darius A. Paduch

82 ART in men with 100% immotile sperm, 349
  Carolina Ortega-Hrepich, Dominique Raick and Herman Tournaye

83 Request for posthumous fatherhood with perimortem surgical
  sperm retrieval, 353
  Zamip P. Patel, Heather E. Ross and Lawrence S. Ross

84 Retrograde ejaculation and anejaculation, 360
  Asif Muneer and Anthony Hirsh

85 Sperm retrieval in cancerous testes, 364
  Saad Aldousari and Armand Zini
CONTENTS

86 Leukocytospermia and ART, 367
   Giuseppe Ricci

87 The infertile male patient with a genetic cause, 371
   Katherine L. O’Flynn O’Brien and Ashok Agarwal

88 Y chromosome microdeletions and ART, 376
   Sherman J. Silber

Section 8: The ART pregnancy

89 Unexpected number or gender of babies after IVF, 383
   Khaldoun Sharif

90 Suspected ectopic pregnancy after IVF, 387
   Vishvanath C. Karande

91 Cervical ectopic pregnancy after IVF, 391
   Usha Verma

92 Heterotopic pregnancy after IVF, 396
   Abdel-Maguid Ramzy

93 Multi-fetal pregnancy reduction after ART, 400
   R. Katie Morris and Mark D. Kilby

94 Multiple pregnancy after IVF: to cerclage or not to cerclage? 405
   Harold Gee

95 Hyperreactio luteinalis after IVF, 409
   Mohammad Ebrahim Parsanezhad, Leila Forooghinia and
   Maryam Parsa-Nezhad

96 Lactation by a commissioning mother in surrogacy, 412
   Frank P. Biervliet and Stephen L. Atkin

Section 9: General issues

97 Dealing with the emotional distress following failed IVF, 417
   Linda Hammer Burns

98 IVF when the prognosis is very poor or futile, 421
   Khaldoun Sharif

99 Unexpected drop in the ART clinic pregnancy rate, 425
   Bulent Urman and Kayhan Yakin

100 Natural fertility after IVF, 430
    Frank Nawroth and Annika K. Ludwig

Index, 433