WEBVTT

1
00:00:04.320 --> 00:00:06.010
- In this video, we will be reviewing

2
00:00:06.010 --> 00:00:08.010
evidence-based practices and strategies

3
00:00:08.010 --> 00:00:10.870
in managing complications
from procedural abortion.

4
00:00:10.870 --> 00:00:12.060
If you haven't already,

5
00:00:12.060 --> 00:00:13.700
we suggest reviewing the complications

6
00:00:13.700 --> 00:00:16.363
of procedural abortion
and prevention strategies.

7
00:00:17.240 --> 00:00:19.800
Complications from procedural
abortion are infrequent

8
00:00:19.800 --> 00:00:22.840
with 0.6% of procedures
having complications.

9
00:00:22.840 --> 00:00:24.730
There are also health disparities in rates

10
00:00:24.730 --> 00:00:28.560
of complications within some
ethnic and racial groups.

11
00:00:28.560 --> 00:00:31.280
However, it's important to

highlight that, overall,

12
00:00:31.280 --> 00:00:34.190
complications for procedural
abortion are very rare.

13
00:00:34.190 --> 00:00:36.810
In fact, the risk of death
associated with childbirth

14
00:00:36.810 --> 00:00:39.330
for some groups is
approximately 14 times higher

15
00:00:39.330 --> 00:00:41.370
than that with abortion.

16
00:00:41.370 --> 00:00:44.810
Lastly, a 2015 article by Zane et all

17
00:00:44.810 --> 00:00:47.970
in Obstetrics and Gynecology
found that deaths associated

18
00:00:47.970 --> 00:00:51.200
with legal induced abortion
continue to be rare events,

19
00:00:51.200 --> 00:00:53.773
less than one per 100,000 procedures.

20
00:00:54.680 --> 00:00:56.740
Prior to undergoing procedural abortion,

21
00:00:56.740 --> 00:00:58.670
every patient should
have a detailed history

22
00:00:58.670 --> 00:01:01.160

and exam to be able to
identify any potential risk

23
00:01:01.160 --> 00:01:04.090
for complications that
clinicians can be prepared for.

24
00:01:04.090 --> 00:01:05.700
Let's walk through a case where we do

25
00:01:05.700 --> 00:01:08.470
a pre-procedure risk assessment together.

26
00:01:08.470 --> 00:01:10.810
Patient BB, who uses they/them pronouns

27
00:01:10.810 --> 00:01:14.200
is a 34-year-old gravida 4 para 2,

28
00:01:14.200 --> 00:01:15.930
who is presenting for procedural abortion

29
00:01:15.930 --> 00:01:18.210
at 22 weeks and four days gestation

30
00:01:18.210 --> 00:01:20.153
based on their last menstrual period.

31
00:01:20.990 --> 00:01:22.210
After you take their history,

32
00:01:22.210 --> 00:01:25.740
you find out that they have
undergone two cesarean sections.

33
00:01:25.740 --> 00:01:27.270
BB mentioned that they were told

34

00:01:27.270 --> 00:01:29.560
that the fetus was
diagnosed with trisomy 18

35
00:01:29.560 --> 00:01:32.520
and demised two to three weeks ago.

36
00:01:32.520 --> 00:01:35.660
On physical exam, BB's BMI is 35.

37
00:01:35.660 --> 00:01:37.220
In evaluating their clinical picture,

38
00:01:37.220 --> 00:01:39.180
you start to think
about what complications

39
00:01:39.180 --> 00:01:40.240
are they at risk for?

40
00:01:40.240 --> 00:01:42.480
And more importantly,
what measures can you take

41
00:01:42.480 --> 00:01:44.600
to decrease their risk of complications?

42
00:01:44.600 --> 00:01:46.560
So let's think about
some of the risk factors

43
00:01:46.560 --> 00:01:49.650
for a procedural abortion
and we'll focus particularly

44
00:01:49.650 --> 00:01:52.410
on second trimester
complications given our case.

45

00:01:52.410 --> 00:01:55.080
First, increasing gestational
age is probably one

46
00:01:55.080 --> 00:01:57.870
of the more significant risk
factors for complication.

47
00:01:57.870 --> 00:02:00.750
When a person presents at
a later gestational age,

48
00:02:00.750 --> 00:02:03.370
they are at increased risk for hemorrhage,

49
00:02:03.370 --> 00:02:07.490
cervical laceration,
perforation, and mortality.

50
00:02:07.490 --> 00:02:10.010
In addition to increasing gestational age,

51
00:02:10.010 --> 00:02:12.540
other risk factors for
abortion complications

52
00:02:12.540 --> 00:02:16.110
generally include:
inadequate cervical dilation,

53
00:02:16.110 --> 00:02:18.540
needing to mechanically dilate the cervix,

54
00:02:18.540 --> 00:02:22.380
having a history of more than
one prior cesarean section,

55
00:02:22.380 --> 00:02:26.600
use of general anesthesia during
the procedure, nulliparity,

56
00:02:26.600 --> 00:02:30.170
abnormal placentation such as
placenta previa or accreta,

57
00:02:30.170 --> 00:02:32.900
or provider inexperience.

58
00:02:32.900 --> 00:02:35.530
Notably, fetal demise
is a risk factor for DIC

59
00:02:36.410 --> 00:02:38.410
and subsequent, hemorrhage.

60
00:02:38.410 --> 00:02:40.070
Now that we've done a quick overview

61
00:02:40.070 --> 00:02:41.910
of risk factors for complications.

62
00:02:41.910 --> 00:02:43.990
What are some of those
pertinent risk factors

63
00:02:43.990 --> 00:02:45.630
in BB's history?

64
00:02:45.630 --> 00:02:47.510
The first risk factor that you might think

65
00:02:47.510 --> 00:02:51.230
of is that they have had
two prior ceasarean sections

66
00:02:51.230 --> 00:02:54.060
which increases their risk
of abnormal placentation

67
00:02:54.060 --> 00:02:57.060
and inadequate cervical dilation.

68
00:02:57.060 --> 00:03:00.780
These, in turn, increase
BB's risk for hemorrhage,

69
00:03:00.780 --> 00:03:03.290
cervical laceration, uterine perforation,

70
00:03:03.290 --> 00:03:06.990
and rarely the need for
additional unplanned procedures

71
00:03:06.990 --> 00:03:10.593
such as uterine artery
embolization or hysterectomy.

72
00:03:11.520 --> 00:03:14.940
BB's later gestational
age is also a risk factor

73
00:03:14.940 --> 00:03:16.610
and it would be necessary to know

74
00:03:16.610 --> 00:03:17.840
what the fetus is measuring

75
00:03:17.840 --> 00:03:20.570
before proceeding with
the procedural abortion.

76
00:03:20.570 --> 00:03:24.450
The suspected fetal demise
is also another risk factor.

77
00:03:24.450 --> 00:03:26.470
The next step is considering

78
00:03:26.470 --> 00:03:28.840
what pre-procedural
workup needs to be done

79
00:03:28.840 --> 00:03:32.200
before safely proceeding with
a dilation and evacuation.

80
00:03:32.200 --> 00:03:35.060
Step one, as I mentioned
is that you will need

81
00:03:35.060 --> 00:03:38.900
to perform an ultrasound
to confirm gestational age.

82
00:03:38.900 --> 00:03:40.990
This would also be a
good time to determine

83
00:03:40.990 --> 00:03:43.000
if there is a fetal demise.

84
00:03:43.000 --> 00:03:46.600
With BB's history of two
prior cesarean sections

85
00:03:46.600 --> 00:03:48.710
we can also check placental location

86
00:03:48.710 --> 00:03:52.550
since they are at increased
risk of abnormal placentation.

87
00:03:52.550 --> 00:03:55.270
And this ultrasound
evaluation will allow us

88
00:03:55.270 --> 00:03:58.160

to stratify the risk a
little bit more specifically.

89
00:03:58.160 --> 00:03:59.970
Some clues during the ultrasound

90
00:03:59.970 --> 00:04:01.280
that might make you suspicious

91
00:04:01.280 --> 00:04:04.570
for abnormal placentation
or placental lacunae.

92
00:04:04.570 --> 00:04:06.900
They give a Swiss cheese appearance,

93
00:04:06.900 --> 00:04:10.380
loss of the normal
retroplacental hypoechoic space

94
00:04:10.380 --> 00:04:13.190
or increased vascularity on doppler.

95
00:04:13.190 --> 00:04:15.600
If this is the case, and you
can confirm your suspicion

96
00:04:15.600 --> 00:04:19.380
with the radiology
performed ultrasound or MRI.

97
00:04:19.380 --> 00:04:21.680
The Society of Family
Planning's clinical guidance

98
00:04:21.680 --> 00:04:24.810
on managing post-abortion
hemorrhage has a helpful table

99

00:04:24.810 --> 00:04:26.510
as a way to stratify patients.

100
00:04:26.510 --> 00:04:28.810
Based on their history and comorbidities

101
00:04:28.810 --> 00:04:31.280
and it suggests strategies
for risk-reduction.

102
00:04:31.280 --> 00:04:32.870
Those in the moderate risk category

103
00:04:32.870 --> 00:04:36.430
are those who have undergone
two or more cesarean sections

104
00:04:36.430 --> 00:04:39.840
at least one prior C-section
for placenta previa,

105
00:04:39.840 --> 00:04:43.270
bleeding disorder, history
of obstetrical hemorrhage

106
00:04:43.270 --> 00:04:46.970
not requiring transfusion,
advanced maternal age,

107
00:04:46.970 --> 00:04:49.040
gestational age greater than 20 weeks,

108
00:04:49.040 --> 00:04:52.350
significant uterine fibroids or obesity.

109
00:04:52.350 --> 00:04:53.840
Those in a high-risk category

110
00:04:53.840 --> 00:04:56.840

would be those that have a
placenta accreta diagnosis

111
00:04:56.840 --> 00:04:58.700
or history of obstetrical hemorrhage

112
00:04:58.700 --> 00:05:01.620
that did require a transfusion.

113
00:05:01.620 --> 00:05:04.190
In fact, any of the
moderate risk categories

114
00:05:04.190 --> 00:05:05.350
can be considered high risk

115
00:05:05.350 --> 00:05:07.730
at the discretion of
the treating clinician.

116
00:05:07.730 --> 00:05:10.050
Now, let's go back to our patient BB.

117
00:05:10.050 --> 00:05:11.610
Now that we know what risk factors

118
00:05:11.610 --> 00:05:13.700
they have going into procedural abortion.

119
00:05:13.700 --> 00:05:16.310
We can talk about what
pre-operative measures we can take

120
00:05:16.310 --> 00:05:18.800
to decrease their risk of complications.

121
00:05:18.800 --> 00:05:20.990
Your ultrasound determined
that their gestational age

122
00:05:20.990 --> 00:05:25.560
is actually 21 weeks and six
days by biparietal diameter.

123
00:05:25.560 --> 00:05:27.550
The location of the placenta is fundal

124
00:05:27.550 --> 00:05:29.940
and not near their prior cesarean scar.

125
00:05:29.940 --> 00:05:32.730
You also note there is
no fetal heart rate.

126
00:05:32.730 --> 00:05:34.850
Based on BB's history and ultrasound,

127
00:05:34.850 --> 00:05:36.850
risk reducing strategies that we can take

128
00:05:36.850 --> 00:05:38.630
before their procedure is to obtain

129
00:05:38.630 --> 00:05:40.920
a pre-operative hemoglobin,

130
00:05:40.920 --> 00:05:43.150
ensure adequate surgical preparation,

131
00:05:43.150 --> 00:05:46.320
and having uterotonic
medications easily accessible

132
00:05:46.320 --> 00:05:47.710
in the procedure room.

133
00:05:47.710 --> 00:05:50.270

We should also consider
having a discussion

134
00:05:50.270 --> 00:05:51.870
with shared decision-making

135
00:05:51.870 --> 00:05:53.890
about the possibility of transfusion

136
00:05:53.890 --> 00:05:57.320
and sign any necessary
consent forms at that time.

137
00:05:57.320 --> 00:05:59.960
Additionally, we'll give
prophylactic antibiotics

138
00:05:59.960 --> 00:06:02.540
to reduce the risk of
post-abortion infection

139
00:06:02.540 --> 00:06:03.550
in our patient.

140
00:06:03.550 --> 00:06:05.470
In terms of cervical preparation,

141
00:06:05.470 --> 00:06:07.460
there is level A evidence that shows

142
00:06:07.460 --> 00:06:09.130
adequate surgical preparation

143
00:06:09.130 --> 00:06:12.720
reduces the risk of complications
in procedural abortion

144
00:06:12.720 --> 00:06:15.840
for patients greater than

20 weeks of gestation.

145
00:06:15.840 --> 00:06:17.530
With the current evidence available,

146
00:06:17.530 --> 00:06:20.100
the recommendation is
to use osmotic dilators

147
00:06:20.100 --> 00:06:21.880
for patients greater than 20 weeks.

148
00:06:21.880 --> 00:06:24.120
However, there is insufficient data

149
00:06:24.120 --> 00:06:25.950
about whether osmotic dilators

150
00:06:25.950 --> 00:06:29.620
plus pharmacologic
preparation with Mifepristone

151
00:06:29.620 --> 00:06:33.340
and Misoprostol are superior
to one or the other.

152
00:06:33.340 --> 00:06:35.530
There is also insufficient
evidence to recommend

153
00:06:35.530 --> 00:06:38.880
a specific regimen of surgical
preparation over another.

154
00:06:38.880 --> 00:06:42.090
In keeping with reducing
BB's risk however we can,

155
00:06:42.090 --> 00:06:45.250

there are also evidence-based
intraoperative measures

156
00:06:45.250 --> 00:06:46.270
we can take.

157
00:06:46.270 --> 00:06:49.590
Some of those steps include
ensuring adequate training

158
00:06:49.590 --> 00:06:51.850
and supervision of performing providers,

159
00:06:51.850 --> 00:06:54.350
avoiding halogenated anesthetic gases,

160
00:06:54.350 --> 00:06:56.500
and adding vasopressin
in the cervical block

161
00:06:56.500 --> 00:06:59.740
to reduce bleeding as
shown in prior studies.

162
00:06:59.740 --> 00:07:02.140
Additionally, planning for
intraoperative ultrasound

163
00:07:02.140 --> 00:07:05.050
guidance may reduce the risk
of complications in this case

164
00:07:05.050 --> 00:07:06.400
based on level B evidence.

165
00:07:06.400 --> 00:07:08.830
Especially if done in a training setting,

166
00:07:08.830 --> 00:07:10.520

although there is insufficient evidence

167
00:07:10.520 --> 00:07:12.640
to recommend routine use.

168
00:07:12.640 --> 00:07:15.510
Measures that do not have
robust supporting evidence

169
00:07:15.510 --> 00:07:17.820
include prophylactic uterine massage,

170
00:07:17.820 --> 00:07:20.380
and prophylactic uterotonics.

171
00:07:20.380 --> 00:07:24.380
Our recent RCT showed that
using prophylactic oxytocin

172
00:07:24.380 --> 00:07:27.420
during D&E did not lead to
lower frequency of interventions

173
00:07:27.420 --> 00:07:30.370
to control bleeding
between 18 and 24 weeks.

174
00:07:30.370 --> 00:07:32.900
However, one of their
secondary outcomes did show

175
00:07:32.900 --> 00:07:36.530
oxytocin to decrease blood loss
and frequency of hemorrhage.

176
00:07:36.530 --> 00:07:39.830
Another RCT evaluating the
use of prophylactic methergine

177

00:07:39.830 --> 00:07:42.370
showed no improvement in composite outcome

178
00:07:42.370 --> 00:07:43.500
for excessive bleeding

179
00:07:43.500 --> 00:07:46.140
with prophylactic
post-op methylergonovine.

180
00:07:46.140 --> 00:07:48.690
In fact, excessive
bleeding outcomes occurred

181
00:07:48.690 --> 00:07:50.670
more frequently in the treatment group,

182
00:07:50.670 --> 00:07:54.870
potentially indicating harm
with prophylactic use after D&E.

183
00:07:54.870 --> 00:07:57.360
Sometimes despite taking
all of the recommended

184
00:07:57.360 --> 00:07:59.540
and necessary steps to reduce the risk,

185
00:07:59.540 --> 00:08:01.200
complications will still happen.

186
00:08:01.200 --> 00:08:03.720
And clinicians should be
prepared to effectively

187
00:08:03.720 --> 00:08:06.150
and efficiently manage
these complications.

188

00:08:06.150 --> 00:08:08.290
What's helpful is that
some of the initial steps

189
00:08:08.290 --> 00:08:12.140
are similar to managing any
urgent or emergent scenarios

190
00:08:12.140 --> 00:08:14.260
in obstetrics and gynecology.

191
00:08:14.260 --> 00:08:16.640
One, asking for additional personnel

192
00:08:16.640 --> 00:08:18.590
in the procedure room immediately.

193
00:08:18.590 --> 00:08:20.550
Two, doing a timely evaluation

194
00:08:20.550 --> 00:08:22.720
while keeping a broad
differential diagnosis.

195
00:08:22.720 --> 00:08:24.410
And three, maintaining clear

196
00:08:24.410 --> 00:08:27.100
and effective team communication.

197
00:08:27.100 --> 00:08:29.540
If you're practicing in
a freestanding clinic,

198
00:08:29.540 --> 00:08:31.410
some of these steps may
be different depending

199
00:08:31.410 --> 00:08:34.820

on the availability of certain
resources in your setting.

200
00:08:34.820 --> 00:08:36.720
More information on managing complications

201
00:08:36.720 --> 00:08:38.710
in a freestanding clinic can be found

202
00:08:38.710 --> 00:08:41.870
in the resources and
supplemental materials.

203
00:08:41.870 --> 00:08:44.040
Every step in managing complications,

204
00:08:44.040 --> 00:08:46.400
from the initial assessment
to all of the levels

205
00:08:46.400 --> 00:08:49.330
of treatment are ongoing and interrelated.

206
00:08:49.330 --> 00:08:51.120
For example, if you have a patient

207
00:08:51.120 --> 00:08:53.680
with excessive bleeding
after the procedure,

208
00:08:53.680 --> 00:08:56.210
you may be administering primary treatment

209
00:08:56.210 --> 00:08:58.880
with uterotonics while still
performing your evaluation

210
00:08:58.880 --> 00:09:00.790
for the cause of excessive bleeding.

211
00:09:00.790 --> 00:09:04.220
This algorithm in the Society
of Family Planning guidelines

212
00:09:04.220 --> 00:09:07.570
on management of hemorrhage
after second trimester abortion

213
00:09:07.570 --> 00:09:10.410
systematically outlined
steps that you should take

214
00:09:10.410 --> 00:09:12.980
when evaluating excessive
bleeding or hemorrhage.

215
00:09:12.980 --> 00:09:14.530
The first steps in your assessment

216
00:09:14.530 --> 00:09:15.920
will be to perform an ultrasound

217
00:09:15.920 --> 00:09:19.160
to look for any evidence of
hematometra or retained products

218
00:09:19.160 --> 00:09:21.030
getting adequate exposure of the cervix

219
00:09:21.030 --> 00:09:24.020
and expecting it for
any possible laceration,

220
00:09:24.020 --> 00:09:27.270
and evaluating for any
signs of uterine atony

221
00:09:27.270 --> 00:09:31.390

with a bimanual exam and
possibly doing a cannula test.

222
00:09:31.390 --> 00:09:33.330
The cannula test helps
to locate the bleeding

223
00:09:33.330 --> 00:09:36.250
in the uterus and involves
inserting a flexible cannula

224
00:09:36.250 --> 00:09:39.073
usually a size eight or
10 millimeter cannula,

225
00:09:39.910 --> 00:09:41.960
up to the fundus and slowly retracting it

226
00:09:41.960 --> 00:09:44.350
down from the fundus towards
the lower uterine segment,

227
00:09:44.350 --> 00:09:46.720
and then slowly through the cervix.

228
00:09:46.720 --> 00:09:49.180
When you start to see blood
return from the cannula,

229
00:09:49.180 --> 00:09:51.700
it gives you an idea of where
the bleeding is coming from.

230
00:09:51.700 --> 00:09:54.890
For example, lower uterine
segment versus cervical.

231
00:09:54.890 --> 00:09:56.720
Bleeding from higher up near the fundus

232
00:09:56.720 --> 00:09:58.300
may indicate uterine atony,

233
00:09:58.300 --> 00:10:00.960
whereas lower down in
the lower uterine segment

234
00:10:00.960 --> 00:10:04.170
or higher in the cervix may
indicate a higher cervical tear

235
00:10:04.170 --> 00:10:06.880
or disruption of a prior uterine scar.

236
00:10:06.880 --> 00:10:09.220
After your initial
assessment of the bleeding,

237
00:10:09.220 --> 00:10:11.130
you wanna target your first line treatment

238
00:10:11.130 --> 00:10:14.120
to what you believe is
causing the excessive bleeding

239
00:10:14.120 --> 00:10:15.720
based on your evaluation.

240
00:10:15.720 --> 00:10:17.930
Generally, excessive
bleeding can be controlled

241
00:10:17.930 --> 00:10:20.370
by using these initial measures.

242
00:10:20.370 --> 00:10:23.000
Suspected uterine atony should
be treated with uterotonics,

243
00:10:23.000 --> 00:10:25.460
especially if uterine massage doesn't stop

244
00:10:25.460 --> 00:10:27.270
or control the bleeding.

245
00:10:27.270 --> 00:10:28.540
Uterotonics that are most commonly

246
00:10:28.540 --> 00:10:31.220
used are methergine and misoprostol.

247
00:10:31.220 --> 00:10:33.930
Carboprost and oxytocin can also be used,

248
00:10:33.930 --> 00:10:35.280
but are less common.

249
00:10:35.280 --> 00:10:37.220
If a single uterotonic fails,

250
00:10:37.220 --> 00:10:39.100
other uterotonics and repeat doses

251
00:10:39.100 --> 00:10:41.430
should be given to help resolve bleeding.

252
00:10:41.430 --> 00:10:44.350
Superficial and small cervical
lacerations can be treated

253
00:10:44.350 --> 00:10:47.320
with pressure or
compression or with the use

254
00:10:47.320 --> 00:10:49.420
of hemostatic agents like silver nitrate,

255
00:10:49.420 --> 00:10:53.670
or ferric subsulfate solution
also known as Monsel's.

256
00:10:53.670 --> 00:10:56.060
If the laceration is
inside the cervical canal,

257
00:10:56.060 --> 00:10:58.130
applying Monsel's with a large Q-tip

258
00:10:58.130 --> 00:11:01.970
by inserting it in the cervical
canal can be effective.

259
00:11:01.970 --> 00:11:04.640
Larger cervical lacerations
on the external cervix,

260
00:11:04.640 --> 00:11:07.680
usually one centimeter or more
in size should be repaired

261
00:11:07.680 --> 00:11:09.690
with absorbable sutures.

262
00:11:09.690 --> 00:11:11.050
High cervical lacerations

263
00:11:11.050 --> 00:11:13.250
especially those suspected
to involve a branch

264
00:11:13.250 --> 00:11:16.322
of the uterine artery usually
require a balloon tamponade

265
00:11:16.322 --> 00:11:18.604
to treat bleeding and rarely may require

266
00:11:18.604 --> 00:11:21.070
interventional radiology for embolization

267
00:11:21.070 --> 00:11:23.680
if tamponade is not effective.

268
00:11:23.680 --> 00:11:25.640
If there is evidence of retained products

269
00:11:25.640 --> 00:11:29.310
or re-accumulation of blood
on your ultrasound evaluation,

270
00:11:29.310 --> 00:11:31.920
re-aspiration of the
uterus is recommended.

271
00:11:31.920 --> 00:11:33.780
If despite these initial efforts,

272
00:11:33.780 --> 00:11:35.690
there continues to be excessive bleeding

273
00:11:35.690 --> 00:11:37.980
then you should move quickly
to secondary measures

274
00:11:37.980 --> 00:11:40.790
including obtaining additional IV access,

275
00:11:40.790 --> 00:11:43.970
administering IV fluids
for fluid resuscitation,

276
00:11:43.970 --> 00:11:46.720
and getting labs like a
CBC and coagulation panel

277
00:11:46.720 --> 00:11:48.800
including fibrinogen to evaluate

278
00:11:48.800 --> 00:11:50.847
for any evolving anemia or DIC.

279
00:11:51.870 --> 00:11:54.270
You should also ensure that
the patient is cross-match

280
00:11:54.270 --> 00:11:57.750
for blood products in case
transfusion becomes necessary.

281
00:11:57.750 --> 00:12:01.030
And of course, ensure that
you have adequate personnel

282
00:12:01.030 --> 00:12:02.840
in the room to help with these tasks.

283
00:12:02.840 --> 00:12:04.210
To ensure the patient is stable,

284
00:12:04.210 --> 00:12:07.130
and to help you with any
clinical or procedural needs.

285
00:12:07.130 --> 00:12:08.870
A balloon tamponade is very effective

286
00:12:08.870 --> 00:12:10.370
for treating post-abortion hemorrhage

287
00:12:10.370 --> 00:12:12.950
due to atony and lower
uterine segment bleeding.

288

00:12:12.950 --> 00:12:16.030
You can insert a 30cc foley
balloon into the uterus

289
00:12:16.030 --> 00:12:18.940
and fill it with up to 60 mils of saline.

290
00:12:18.940 --> 00:12:20.810
Or you can use a bakri balloon

291
00:12:20.810 --> 00:12:23.210
which has a 500 mil capacity.

292
00:12:23.210 --> 00:12:26.230
Smaller volumes may be
necessary for first trimester

293
00:12:26.230 --> 00:12:28.860
and early second trimester procedures.

294
00:12:28.860 --> 00:12:30.270
The balloon can be left in place

295
00:12:30.270 --> 00:12:32.980
from anywhere between two to 24 hours,

296
00:12:32.980 --> 00:12:34.630
depending on the patient's stability

297
00:12:34.630 --> 00:12:36.150
and response to treatment.

298
00:12:36.150 --> 00:12:39.020
A good strategy to use is to
deflate the balloon slowly

299
00:12:39.020 --> 00:12:41.670
in small increments, so
that if bleeding presumes

300
00:12:41.670 --> 00:12:43.860
it can be quickly reinflated.

301
00:12:43.860 --> 00:12:46.330
Tertiary measures for
bleeding that does not resolve

302
00:12:46.330 --> 00:12:48.150
with primary or secondary measures

303
00:12:48.150 --> 00:12:51.710
include interventions like
uterine artery embolization,

304
00:12:51.710 --> 00:12:54.400
and very rarely more
invasive surgical procedures

305
00:12:54.400 --> 00:12:57.150
such as laparoscopy, laparotomy,

306
00:12:57.150 --> 00:12:59.650
or hysterectomy for uncontrolled bleeding.

307
00:12:59.650 --> 00:13:01.190
If you are in a freestanding clinic,

308
00:13:01.190 --> 00:13:04.410
tertiary steps may require
a transfer to a hospital.

309
00:13:04.410 --> 00:13:06.520
Uterine artery embolization
can be effective

310
00:13:06.520 --> 00:13:08.710
for refractory uterine atony.

311
00:13:08.710 --> 00:13:11.310
Placental site bleeding
from abnormal placentation

312
00:13:11.310 --> 00:13:14.370
or high cervical tears that
don't respond to tamponade.

313
00:13:14.370 --> 00:13:16.480
If possible, based on your setting

314
00:13:16.480 --> 00:13:18.280
and the patient's hemodynamic status,

315
00:13:18.280 --> 00:13:20.760
uterine artery embolization
should be considered first

316
00:13:20.760 --> 00:13:23.610
before more invasive surgical procedures.

317
00:13:23.610 --> 00:13:26.550
However, for cases of
suspected uterine perforation

318
00:13:26.550 --> 00:13:29.190
or injury to other internal organs

319
00:13:29.190 --> 00:13:31.400
or cases where either
interventional radiology

320
00:13:31.400 --> 00:13:33.920
is not available or is not appropriate

321
00:13:33.920 --> 00:13:36.200
based on patient's hemodynamic status.

322

00:13:36.200 --> 00:13:38.992
Then more invasive surgical
procedures like laparoscopy

323
00:13:38.992 --> 00:13:42.140
or laparotomy should be done as necessary.

324
00:13:42.140 --> 00:13:44.150
Diagnosing the suspected
uterine perforation

325
00:13:44.150 --> 00:13:46.050
is typically a clinical diagnosis.

326
00:13:46.050 --> 00:13:47.930
Although, there are some objective ways

327
00:13:47.930 --> 00:13:50.830
that can make you more or less suspicious.

328
00:13:50.830 --> 00:13:52.360
The most important starting point

329
00:13:52.360 --> 00:13:54.910
when evaluating a possible
perforation is determining

330
00:13:54.910 --> 00:13:56.800
if the patient is stable or not.

331
00:13:56.800 --> 00:13:58.480
Are they having pain out of proportion

332
00:13:58.480 --> 00:14:01.250
to what would be expected after a D&E?

333
00:14:01.250 --> 00:14:03.590
Are they hypotensive and tachycardic?

334
00:14:03.590 --> 00:14:06.420
Is their abdomen distended
and are they exhibiting signs

335
00:14:06.420 --> 00:14:08.940
of peritonitis from hemoperitoneum?

336
00:14:08.940 --> 00:14:11.780
Many patients with
perforation will be stable.

337
00:14:11.780 --> 00:14:13.540
And you can further
monitor their stability

338
00:14:13.540 --> 00:14:16.300
with serial abdominal exams and CBCs.

339
00:14:16.300 --> 00:14:17.700
If you suspect that the patient

340
00:14:17.700 --> 00:14:19.800
may have some intra-abdominal bleeding,

341
00:14:19.800 --> 00:14:23.660
getting an ultrasound or CT
scan can help identify this.

342
00:14:23.660 --> 00:14:26.930
Sometimes, perforation
requires surgical management

343
00:14:26.930 --> 00:14:30.420
if there is significant continued
intra-abdominal bleeding,

344
00:14:30.420 --> 00:14:31.780
or if there is suspicion

345
00:14:31.780 --> 00:14:33.650
of surrounding organs being injured.

346
00:14:33.650 --> 00:14:34.680
If that's the case,

347
00:14:34.680 --> 00:14:37.400
laparoscopy and laparotomy
are different ways

348
00:14:37.400 --> 00:14:39.270
to manage a perforation.

349
00:14:39.270 --> 00:14:40.650
Laparoscopy is appropriate

350
00:14:40.650 --> 00:14:42.800
if you think the perforation is small.

351
00:14:42.800 --> 00:14:45.340
Otherwise, laparotomy is the other option

352
00:14:45.340 --> 00:14:48.340
and is usually the answer
when the patient is unstable.

353
00:14:48.340 --> 00:14:51.160
Again, it's important to
remember that each of the steps

354
00:14:51.160 --> 00:14:53.940
of the assessment and tiers
of treatment are interrelated,

355
00:14:53.940 --> 00:14:56.730
and you can and should
circle back to previous tears

356

00:14:56.730 --> 00:14:58.110
during your management.

357
00:14:58.110 --> 00:15:01.340
These steps do not exist in
isolation of one another.

358
00:15:01.340 --> 00:15:02.830
Another important thing to note

359
00:15:02.830 --> 00:15:04.660
is that nearly all cases of hemorrhage

360
00:15:04.660 --> 00:15:06.900
or excessive bleeding can
be managed appropriately

361
00:15:06.900 --> 00:15:09.460
before reaching the
tertiary treatment step.

362
00:15:09.460 --> 00:15:12.330
Another helpful tip is to
remember to maintain clear,

363
00:15:12.330 --> 00:15:14.110
closed-loop communication with your team

364
00:15:14.110 --> 00:15:16.870
while managing complications,
calling in for help,

365
00:15:16.870 --> 00:15:18.958
and escalating the
patient's care as necessary

366
00:15:18.958 --> 00:15:21.560
in an efficient manner.

367

00:15:21.560 --> 00:15:23.790
Debriefing with the whole
team after complications

368
00:15:23.790 --> 00:15:25.300
is another great example of teamwork

369
00:15:25.300 --> 00:15:27.740
and communication strategy to use.

370
00:15:27.740 --> 00:15:30.000
It can help identify
systematic improvements

371
00:15:30.000 --> 00:15:31.540
for future cases.

372
00:15:31.540 --> 00:15:33.130
Complications after procedural

373
00:15:33.130 --> 00:15:35.100
second trimester abortion are rare.

374
00:15:35.100 --> 00:15:37.790
When individualizing patient
care you should consider

375
00:15:37.790 --> 00:15:41.210
pre-procedure, intra-procedure
and post-procedure measures

376
00:15:41.210 --> 00:15:43.920
that can decrease the
risk of complications.

377
00:15:43.920 --> 00:15:46.260
Using a systematic approach
with effective team

378

00:15:46.260 --> 00:15:48.470
communication strategies
are the cornerstones

379
00:15:48.470 --> 00:15:51.330
to managing complications
after procedural abortion.

380
00:15:51.330 --> 00:15:54.907
For more information, please
visit innovating-education.org.