

WEBVTT

1

00:00:04.990 --> 00:00:07.360

- Early Pregnancy Loss or EPL

2

00:00:07.360 --> 00:00:09.730

is an extremely common experience.

3

00:00:09.730 --> 00:00:13.010

And all healthcare providers  
that care for pregnant people

4

00:00:13.010 --> 00:00:15.870

are likely to encounter EPL frequently.

5

00:00:15.870 --> 00:00:18.830

Best estimates are that 15 to 20%

6

00:00:18.830 --> 00:00:22.410

of clinically recognized  
pregnancies will end in loss.

7

00:00:22.410 --> 00:00:25.630

The term EPL encompasses all non-viable

8

00:00:25.630 --> 00:00:28.900

first trimester pregnancies  
and is interchangeable

9

00:00:28.900 --> 00:00:30.450

with the term miscarriage

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00:00:30.450 --> 00:00:33.790

which is often more familiar  
to patients and families.

11

00:00:33.790 --> 00:00:35.980

EPL has also largely replaced

12  
00:00:35.980 --> 00:00:40.450  
the use of Spontaneous  
Abortion or SAB or SAB

13  
00:00:40.450 --> 00:00:42.930  
in medical literature and discourse.

14  
00:00:42.930 --> 00:00:45.570  
Patients can present  
in many different ways

15  
00:00:45.570 --> 00:00:48.810  
with symptoms or concerns  
for pregnancy loss.

16  
00:00:48.810 --> 00:00:52.110  
Those who seek urgent  
or emergency care visits

17  
00:00:52.110 --> 00:00:55.090  
often are experiencing  
unexpected vaginal bleeding,

18  
00:00:55.090 --> 00:00:58.170  
abdominal or pelvic pain, and cramping.

19  
00:00:58.170 --> 00:01:00.370  
Others may have already  
passed pregnancy tissue

20  
00:01:00.370 --> 00:01:04.260  
or simply worry due to loss  
of pregnancy related symptoms.

21  
00:01:04.260 --> 00:01:07.490  
EPL can also be discovered incidentally

22  
00:01:07.490 --> 00:01:09.800  
without any symptoms at all.

23

00:01:09.800 --> 00:01:12.550

Clinical findings could be a bimanual exam

24

00:01:12.550 --> 00:01:15.910

inconsistent with last  
menstrual period dating

25

00:01:15.910 --> 00:01:19.600

or an ultrasound with  
features suggestive of EPL.

26

00:01:19.600 --> 00:01:22.100

Many of you may have  
specific patients in mind

27

00:01:22.100 --> 00:01:24.280

as we review the principles of evaluation

28

00:01:24.280 --> 00:01:26.090

and diagnosis of EPL.

29

00:01:26.090 --> 00:01:29.950

Today, I wanna talk about one  
patient who we'll call Maya.

30

00:01:29.950 --> 00:01:31.590

Maya is 26 years old

31

00:01:31.590 --> 00:01:35.410

and has a one prior  
uncomplicated term delivery.

32

00:01:35.410 --> 00:01:38.560

They come to see you in the  
emergency room and explain,

33

00:01:38.560 --> 00:01:40.240

I'm two months pregnant and I'm bleeding.

34

00:01:40.240 --> 00:01:42.190

Am I going to lose the baby?

35

00:01:42.190 --> 00:01:45.840

Maya visibly anxious and  
upset by these symptoms.

36

00:01:45.840 --> 00:01:48.270

So how do we care for them?

37

00:01:48.270 --> 00:01:50.500

It's important to use a  
patient centered approach

38

00:01:50.500 --> 00:01:52.780

in your evaluation and care for patients

39

00:01:52.780 --> 00:01:55.050

with possible early pregnancy loss.

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00:01:55.050 --> 00:01:57.370

Pregnancy is often emotionally charged

41

00:01:57.370 --> 00:01:59.770

and using open-ended questions

42

00:01:59.770 --> 00:02:03.670

and remaining silent to allow  
patients to offer information

43

00:02:03.670 --> 00:02:07.010

or ask questions at their  
own pace is really important.

44

00:02:07.010 --> 00:02:09.460

You may want to ask  
about pregnancy intention

45

00:02:09.460 --> 00:02:11.900  
whether this was a highly  
desired, unplanned,

46

00:02:11.900 --> 00:02:14.680  
or if they feel somewhere in  
between about being pregnant

47

00:02:14.680 --> 00:02:17.360  
to better understand  
their priorities for care.

48

00:02:17.360 --> 00:02:19.770  
It's also important to  
address any feelings of guilt

49

00:02:19.770 --> 00:02:22.170  
they may have and reassure  
them that miscarriage

50

00:02:22.170 --> 00:02:25.270  
is almost always a  
random spontaneous event

51

00:02:25.270 --> 00:02:27.010  
and not their fault.

52

00:02:27.010 --> 00:02:28.730  
Lastly, keeping them informed

53

00:02:28.730 --> 00:02:30.470  
throughout the diagnostic process

54

00:02:30.470 --> 00:02:34.470  
is absolutely essential to  
maintain their trust in you.

55

00:02:34.470 --> 00:02:38.370  
During qualitative research

performed while I was at UCSF,

56

00:02:38.370 --> 00:02:39.820

when we asked participants

57

00:02:39.820 --> 00:02:42.870

specifically about their  
communication with providers

58

00:02:42.870 --> 00:02:45.890

they disliked ambiguity  
or delay in news delivery

59

00:02:45.890 --> 00:02:48.090

about EPL diagnosis.

60

00:02:48.090 --> 00:02:49.450

One woman had been frustrated

61

00:02:49.450 --> 00:02:52.230

with a lack of clear  
communication she received

62

00:02:52.230 --> 00:02:53.370

and told us how she wanted

63

00:02:53.370 --> 00:02:55.440

to begin talking about management options.

64

00:02:55.440 --> 00:02:58.140

As soon as the diagnostic  
workup was underway.

65

00:02:58.140 --> 00:03:01.930

She told us they never said  
the word miscarriage, I did.

66

00:03:01.930 --> 00:03:05.160

It felt like I had to drag it out of them.

67

00:03:05.160 --> 00:03:07.450

I said, what does that mean?

68

00:03:07.450 --> 00:03:10.040

What are the next steps?

69

00:03:10.040 --> 00:03:12.650

So what are these next steps?

70

00:03:12.650 --> 00:03:15.690

The diagnostic workup  
includes a thorough history

71

00:03:15.690 --> 00:03:19.620

and pertinent exam to confirm  
hemodynamics stability

72

00:03:19.620 --> 00:03:22.470

and localization of symptoms to the uterus

73

00:03:22.470 --> 00:03:26.500

while ruling out other  
abdominal or pelvic pathology.

74

00:03:26.500 --> 00:03:30.330

When an ultrasound is indicated,  
a transvaginal approach

75

00:03:30.330 --> 00:03:34.360

will give you more specific  
information for an EPL diagnosis

76

00:03:34.360 --> 00:03:36.950

than a transabdominal one alone.

77

00:03:36.950 --> 00:03:41.750

Pertinent lab studies usually  
include screening for anemia.

78

00:03:41.750 --> 00:03:45.000

Current evidence supports  
forgoing RhD testing

79

00:03:45.000 --> 00:03:46.570

if the pregnancy is measuring

80

00:03:46.570 --> 00:03:48.780

less than eight weeks gestation

81

00:03:48.780 --> 00:03:51.330

as the risk of fetal maternal hemorrhage

82

00:03:51.330 --> 00:03:53.560

causing sensitization is low.

83

00:03:53.560 --> 00:03:56.920

Serum hCG is only indicated  
when the pregnancy

84

00:03:56.920 --> 00:03:59.630

cannot be seen on  
ultrasound and evaluation

85

00:03:59.630 --> 00:04:02.890

to rule out ectopic  
pregnancy is necessary.

86

00:04:02.890 --> 00:04:06.700

The full evaluation for  
recurrent pregnancy loss

87

00:04:06.700 --> 00:04:09.370

is beyond the scope of  
this learning module.

88

00:04:09.370 --> 00:04:12.800

However, screening for

antiphospholipid syndrome

89

00:04:12.800 --> 00:04:15.860

or thyroid abnormalities  
are among the initial steps

90

00:04:15.860 --> 00:04:17.860

and can be included during blood draws

91

00:04:17.860 --> 00:04:20.890

for patients meeting those criteria.

92

00:04:20.890 --> 00:04:22.740

We learn the following about Maya

93

00:04:22.740 --> 00:04:24.870

from their initial evaluation.

94

00:04:24.870 --> 00:04:28.850

Maya's sure LNP was  
almost eight weeks ago.

95

00:04:28.850 --> 00:04:31.070

They had a positive urine pregnancy test

96

00:04:31.070 --> 00:04:33.330

in clinic two weeks ago.

97

00:04:33.330 --> 00:04:35.670

This is a desired pregnancy.

98

00:04:35.670 --> 00:04:38.390

Their first prenatal care visit  
is scheduled for next week.

99

00:04:38.390 --> 00:04:41.650

So no ultrasound has been  
done yet this pregnancy.

100

00:04:41.650 --> 00:04:43.530

Their bleeding is like a light period

101

00:04:43.530 --> 00:04:45.430

for the past three days.

102

00:04:45.430 --> 00:04:49.450

On exam, the cervical os  
is closed and they remember

103

00:04:49.450 --> 00:04:52.980

from their first pregnancy  
being Rh negative.

104

00:04:52.980 --> 00:04:55.700

So what can we tell Maya at this time?

105

00:04:55.700 --> 00:04:56.770

As I mentioned earlier,

106

00:04:56.770 --> 00:04:59.800

it's important to keep an open  
dialogue with your patient

107

00:04:59.800 --> 00:05:02.100

during the diagnostic process.

108

00:05:02.100 --> 00:05:04.850

Provide reassurance that  
not all bad vaginal bleeding

109

00:05:04.850 --> 00:05:06.950

and cramping signifies miscarriage

110

00:05:06.950 --> 00:05:10.800

but avoid guarantees that  
everything will be all right.

111

00:05:10.800 --> 00:05:13.130  
Early bleeding can be seen in both normal

112  
00:05:13.130 --> 00:05:16.580  
and abnormal pregnancies so  
it may be helpful for Maya

113  
00:05:16.580 --> 00:05:18.810  
to know that even with bleeding,

114  
00:05:18.810 --> 00:05:21.500  
there's a 50% ongoing pregnancy rate

115  
00:05:21.500 --> 00:05:26.150  
with a closed cervical os,  
85% ongoing pregnancy rate

116  
00:05:26.150 --> 00:05:30.440  
with confirmed cardiac activity  
of an intrauterine pregnancy

117  
00:05:30.440 --> 00:05:35.130  
and 30% of normal pregnancies  
have vaginal bleeding.

118  
00:05:35.130 --> 00:05:38.250  
How do we make a diagnosis  
and use precise language

119  
00:05:38.250 --> 00:05:40.610  
when talking about EPL?

120  
00:05:40.610 --> 00:05:42.880  
With the increased  
availability of ultrasound,

121  
00:05:42.880 --> 00:05:45.260  
many patients are now being diagnosed

122

00:05:45.260 --> 00:05:48.900  
with an early pregnancy loss  
based on findings that confirm

123  
00:05:48.900 --> 00:05:52.650  
either an anembryonic  
gestation or a demise.

124  
00:05:52.650 --> 00:05:54.490  
However, there are additional ways

125  
00:05:54.490 --> 00:05:57.200  
to make the diagnosis of EPL.

126  
00:05:57.200 --> 00:05:59.500  
When a patient presents  
with a history consistent

127  
00:05:59.500 --> 00:06:01.130  
with passing a pregnancy,

128  
00:06:01.130 --> 00:06:04.250  
absence of a previously  
seen intrauterine pregnancy

129  
00:06:04.250 --> 00:06:07.700  
on ultrasound will confirm a miscarriage.

130  
00:06:07.700 --> 00:06:12.670  
Appropriately declining serum  
hCG levels can also confirm

131  
00:06:12.670 --> 00:06:15.410  
a clinical history consistent with EPL

132  
00:06:15.410 --> 00:06:17.780  
and finally tissue confirmation

133  
00:06:17.780 --> 00:06:19.430

of an expelled gestational SAC

134

00:06:19.430 --> 00:06:22.460  
is definitive of an EPL diagnosis.

135

00:06:22.460 --> 00:06:25.850  
Serum hCG levels are  
useful in EPL evaluation

136

00:06:25.850 --> 00:06:28.640  
when an early pregnancy  
cannot be seen on ultrasound

137

00:06:28.640 --> 00:06:30.860  
or ultrasound is not available.

138

00:06:30.860 --> 00:06:34.230  
The discriminatory threshold  
is the level at which

139

00:06:34.230 --> 00:06:37.340  
you should expect to see a normal IUP

140

00:06:37.340 --> 00:06:40.310  
on transvaginal ultrasound.

141

00:06:40.310 --> 00:06:43.210  
When hCG levels are above this threshold,

142

00:06:43.210 --> 00:06:44.950  
and no IUP is seen,

143

00:06:44.950 --> 00:06:49.540  
there is concern for EPL  
or an ectopic pregnancy.

144

00:06:49.540 --> 00:06:51.600  
Once an IUP is visualized,

145

00:06:51.600 --> 00:06:56.600  
sequential hCG values are not  
needed to evaluate viability.

146

00:06:56.890 --> 00:06:59.110  
Below the discriminatory threshold,

147

00:06:59.110 --> 00:07:02.350  
sequential hCG levels  
will give you information

148

00:07:02.350 --> 00:07:04.450  
about the behavior of the pregnancy

149

00:07:04.450 --> 00:07:08.380  
whether it is increasing  
normally, decreasing appropriately

150

00:07:08.380 --> 00:07:12.200  
for a completed miscarriage  
or changing abnormally

151

00:07:12.200 --> 00:07:14.960  
and concerning for an ectopic pregnancy

152

00:07:14.960 --> 00:07:19.300  
or an early sign of a  
developing non-viable pregnancy.

153

00:07:19.300 --> 00:07:21.820  
Once an intrauterine pregnancy is seen,

154

00:07:21.820 --> 00:07:24.420  
additional sonographic  
milestones are important

155

00:07:24.420 --> 00:07:26.370  
in assessing viability.

156

00:07:26.370 --> 00:07:29.690

After the gestational SAC,  
the next landmark to appear

157

00:07:29.690 --> 00:07:32.400

in normal pregnancies is the yolk SAC.

158

00:07:32.400 --> 00:07:36.500

When it is absent, at a  
mean sac diameter, or MSD,

159

00:07:36.500 --> 00:07:40.880

of more than 16 millimeters,  
it is suspicious for EPL.

160

00:07:40.880 --> 00:07:43.130

Next, we would expect an embryonic

161

00:07:43.130 --> 00:07:45.110

or a fetal pole to develop.

162

00:07:45.110 --> 00:07:47.750

When the MSD exceeds 21 millimeters,

163

00:07:47.750 --> 00:07:52.750

we have 99% certainty that this  
is an anembryonic gestation.

164

00:07:52.850 --> 00:07:55.930

The most conservative  
estimates use 25 millimeters to

165

00:07:55.930 --> 00:07:57.880

make the same diagnosis.

166

00:07:57.880 --> 00:07:59.890

Cardiac activity is next to appear

167

00:07:59.890 --> 00:08:02.330  
and is expected to be seen  
when the embryo reaches

168  
00:08:02.330 --> 00:08:06.140  
a crown-rump-length  
CRL of 5.3 millimeters,

169  
00:08:06.140 --> 00:08:10.310  
a cutoff that has a 0%  
false positive rate.

170  
00:08:10.310 --> 00:08:12.400  
Conservative published  
estimates use a cutoff

171  
00:08:12.400 --> 00:08:14.930  
of seven millimeters to make the diagnosis

172  
00:08:14.930 --> 00:08:16.790  
of the embryonic or fetal demise

173  
00:08:16.790 --> 00:08:18.970  
when cardiac activity is absent.

174  
00:08:18.970 --> 00:08:21.020  
This is a typical ultrasound image

175  
00:08:21.020 --> 00:08:24.370  
of an anembryonic  
gestation, a gestational SAC

176  
00:08:24.370 --> 00:08:27.050  
with no evidence of embryonic development

177  
00:08:27.050 --> 00:08:32.050  
with a large MSD of 25  
millimeters and no visible embryo.

178

00:08:32.210 --> 00:08:34.700  
Our patient had this ultrasound,

179  
00:08:34.700 --> 00:08:37.340  
showing an embryo 10  
millimeters in length,

180  
00:08:37.340 --> 00:08:39.920  
but lacking cardiac activity.

181  
00:08:39.920 --> 00:08:43.480  
This exam definitively  
confirms a diagnosis

182  
00:08:43.480 --> 00:08:45.050  
of embryonic demise.

183  
00:08:45.050 --> 00:08:46.810  
This news should be conveyed to Maya

184  
00:08:46.810 --> 00:08:50.863  
in a clear but compassionate  
way, as soon as possible.

185  
00:08:51.700 --> 00:08:53.260  
It's also important to acknowledge

186  
00:08:53.260 --> 00:08:55.530  
some patients will be immediately ready

187  
00:08:55.530 --> 00:08:58.460  
to discuss treatment options,  
while others will prefer

188  
00:08:58.460 --> 00:09:01.320  
to defer decision-making until later.

189  
00:09:01.320 --> 00:09:04.080  
There are four options

for a patient like Maya

190

00:09:04.080 --> 00:09:08.200

who is clinically stable and  
has early pregnancy loss.

191

00:09:08.200 --> 00:09:10.440

Uterine aspiration under deep sedation,

192

00:09:10.440 --> 00:09:12.670

such as in an operating room

193

00:09:12.670 --> 00:09:15.240

or aspiration in an office  
setting with minimal

194

00:09:15.240 --> 00:09:19.920

or no sedation, medication  
management, or expecting care.

195

00:09:19.920 --> 00:09:22.050

Other lectures in this series explore

196

00:09:22.050 --> 00:09:23.780

each of these in greater detail,

197

00:09:23.780 --> 00:09:27.110

but importantly, all options are effective

198

00:09:27.110 --> 00:09:31.090

with equivalent safety  
and patient accessibility.

199

00:09:31.090 --> 00:09:33.480

This is a case of clinical equipoise.

200

00:09:33.480 --> 00:09:35.190

When there is no one treatment

201

00:09:35.190 --> 00:09:37.770

that is superior to the others.

202

00:09:37.770 --> 00:09:39.830

In the next module, we will review

203

00:09:39.830 --> 00:09:42.330

use of the shared decision-making approach

204

00:09:42.330 --> 00:09:45.163

when discussing management with patients.