WEBVTT

1
00:00:05.454 --> 00:00:09.157
Hi, I'm Doctor Karen Meckstroth, and
I'm a professor of obstetrics and

2
00:00:09.157 --> 00:00:10.230
gynecology at UCSF.

3
00:00:11.300 --> 00:00:15.130
So, today I'm going to talk about pain
with uterine aspiration abortion.

4
00:00:15.130 --> 00:00:17.350
We'll talk about pain with
medical abortion in that segment.

5
00:00:17.350 --> 00:00:20.610
But what we'll talk about today
will also pertain toward,

6
00:00:20.610 --> 00:00:23.870
to second trimester abortion,
which can take longer and

7
00:00:23.870 --> 00:00:27.110
often creates more stimulation
that with aspiration.

8
00:00:28.160 --> 00:00:31.870
Of course, we know that abortion
is generally a very difficult and

9
00:00:31.870 --> 00:00:33.300
uncomfortable decision for women.

10
00:00:33.300 --> 00:00:38.560
And it's really our responsibility as
providers to minimize the discomfort and

11
00:00:38.560 --> 00:00:40.444
the pain during the actual procedure.

12
00:00:40.444 --> 00:00:44.520
The uterine fundus and
the top of the uterus and

13
00:00:44.520 --> 00:00:47.390
the cervix are innervated
in different ways.

14
00:00:47.390 --> 00:00:50.450
The nerves that enervate the fundus of

15
00:00:50.450 --> 00:00:53.130
the uterus come in through
the ovarian ligaments and

16
00:00:53.130 --> 00:00:56.825
through the uterus sacral ligaments
which run up the back of the fundus.

17
00:00:56.825 --> 00:00:59.840
These are harder to reach when
we do a speculum exam and

18
00:00:59.840 --> 00:01:01.870
are looking at the cervix.

19
00:01:01.870 --> 00:01:09.340
This nerves that we commonly aim to numb
during an aspiration procedure come in

20
00:01:09.340 --> 00:01:14.120
on the sides of the cervix and integrate
the lower uterine segment and the cervix.

21
00:01:14.120 --> 00:01:19.950
There's also sensory nerves, so there are

a number of types of nerves that transmit

22
00:01:19.950 --> 00:01:23.635
different sensations and different types
of pain and discomfort to the woman.

23
00:01:25.380 --> 00:01:27.140
But we know that pain with abortion and

24
00:01:27.140 --> 00:01:32.280
with any procedure is much more than
a nerve firing equals a number of pain.

25
00:01:32.280 --> 00:01:36.540
This diagram demonstrates
the different levels of pain.

26
00:01:37.860 --> 00:01:42.230
There are different theories of this,
but this is a widely accepted way to

27
00:01:42.230 --> 00:01:46.980
think about the different levels of,
of pain and discomfort.

28
00:01:46.980 --> 00:01:47.840
So you have the quality,

29
00:01:47.840 --> 00:01:53.050
location, intensity of pain and
with the sensory component on the bottom.

30
00:01:53.050 --> 00:01:57.670
And then you have the mood
of the person at the time.

31
00:01:57.670 --> 00:02:01.970
Whether they're anxious or fearful, and
at the top, the most important really,

32
00:02:01.970 --> 00:02:04.550
the cognitive evaluative
component of pain.

33
00:02:04.550 --> 00:02:09.160
Whether someone has a past experience
that changes how they feel about it,

34
00:02:09.160 --> 00:02:12.520
or that what the situation means to them.

35
00:02:12.520 --> 00:02:15.940
And also how much attention they're
paying to their current situation.

36
00:02:18.370 --> 00:02:22.610
We know that there are cultural
differences in how women experience pain,

37
00:02:22.610 --> 00:02:23.680
and how they express it.

38
00:02:24.850 --> 00:02:28.980
It's very unhelpful, however,
to make assumptions about

39
00:02:28.980 --> 00:02:34.730
how someone is expected to present
their pain or their discomfort.

40
00:02:34.730 --> 00:02:38.900
When someone tells us they're in pain,
we need to take them for their word, and

41
00:02:38.900 --> 00:02:40.110
not assume that they are just,

42
00:02:40.110 --> 00:02:45.010
just having secondary gain or

making up a number for us.

43
00:02:45.010 --> 00:02:49.610
Multiple studies, at least in the United States, demonstrate that women or,

44
00:02:49.610 --> 00:02:54.260
demonstrate that people who are of minority cultures compared to

45
00:02:54.260 --> 00:02:58.170
the providers, have inferior treatment of pain in various situations.

46
00:03:00.630 --> 00:03:03.390
Measuring pain is not a very easy thing to do.

47
00:03:03.390 --> 00:03:04.970
It's a very complex process so

48
00:03:04.970 --> 00:03:09.240
as you can imagine, it's hard to simplify the measurement.

49
00:03:09.240 --> 00:03:12.830
Often studies will ask about satisfaction with pain control, rec,

50
00:03:12.830 --> 00:03:15.920
would you recommend this to a friend, would you choose it again.

51
00:03:15.920 --> 00:03:18.820
Or count what percent of women have a certain number of pain,

52
00:03:18.820 --> 00:03:21.490
and then there's more extensive questionnaires.

53
00:03:21.490 --> 00:03:27.320
The most commonly used tool are pain
scales, and this gives some examples.

54
00:03:27.320 --> 00:03:31.330
Specifically for abortion, there was one
study that evaluated different types of

55
00:03:31.330 --> 00:03:36.970
pain scales and found that this
separate box to 100 worked the best.

56
00:03:36.970 --> 00:03:39.600
But any way that you ask for
it is going to give you

57
00:03:39.600 --> 00:03:42.310
additional information about
a woman's discomfort and their pain.

58
00:03:45.360 --> 00:03:49.200
So, what hurts physically during abortion?

59
00:03:49.200 --> 00:03:53.610
We know that there's lots of variation
in how women experience sensation of

60
00:03:53.610 --> 00:03:54.910
their cervix.

61
00:03:54.910 --> 00:04:00.160
This study dilated cer, women's cervices
without giving them any pain control, and

62
00:04:00.160 --> 00:04:01.660
asked them how it felt.

63
00:04:01.660 --> 00:04:05.400

And you can see there's a wide
variety of descriptors that they used.

64
00:04:05.400 --> 00:04:07.530
But most of them are fairly negative.

65
00:04:07.530 --> 00:04:12.310
So it is definitely something that we want
to try to minimize during procedures.

66
00:04:16.350 --> 00:04:18.590
Even with routine pelvic exams,

67
00:04:18.590 --> 00:04:23.200
we often think of this as just how we
get to what we do as a gynecologist.

68
00:04:23.200 --> 00:04:28.760
But a number of women have considerable
discomfort with a standard pelvic exam.

69
00:04:28.760 --> 00:04:32.800
This is increased in women who have,
who are younger or

70
00:04:32.800 --> 00:04:36.750
have history of mental health issues,
or history of sexual abuse.

71
00:04:36.750 --> 00:04:40.470
But you'll notice,
that the highest ads ratio is for

72
00:04:40.470 --> 00:04:43.670
having a negative emotional
contact with the examiner.

73
00:04:43.670 --> 00:04:47.504
So when you're creating a positive
relationship with someone,

74
00:04:47.504 --> 00:04:50.580
you're actually helping
with their pain control.

75
00:04:55.737 --> 00:04:57.930
Pain with aspiration abortion.

76
00:04:57.930 --> 00:05:02.520
There are number, numerous studies that
look at pain with aspiration abortion.

77
00:05:02.520 --> 00:05:06.060
The average pain with various types
of anesthesia when women are awake in

78
00:05:06.060 --> 00:05:09.410
some way is about six out of ten.

79
00:05:09.410 --> 00:05:13.130
And men, most studies are somewhere
between five and seven out of ten.

80
00:05:13.130 --> 00:05:16.350
It's hard to ask satisfaction because
every body is satisfied that they're no

81
00:05:16.350 --> 00:05:18.960
longer pregnant if they're
seeking an abortion.

82
00:05:18.960 --> 00:05:23.540
And most women say they're satisfied with
the pain control that they're given.

83
00:05:23.540 --> 00:05:27.550
And that's true when they have just
local anesthetic, moderate sedation, and

84

00:05:27.550 --> 00:05:28.610
even general anesthesia.

85
00:05:30.740 --> 00:05:35.500
Factors associated with increased abortion
pain include history of depression or

86
00:05:35.500 --> 00:05:39.480
anxiety, or
anticipation of a high level of pain.

87
00:05:39.480 --> 00:05:44.170
Very early gestation or later gestation
toward the end of the first trimester.

88
00:05:44.170 --> 00:05:47.801
Younger women who have not
had prior deliveries and

89
00:05:47.801 --> 00:05:51.117
history of sig, significant dysmenorrhea.

90
00:05:51.117 --> 00:05:56.480
Factors associated with less pain are more
on the side of what we can control.

91
00:05:56.480 --> 00:05:58.450
So, high levels of preparation.

92
00:05:58.450 --> 00:06:01.470
When women have a good
understanding of what they will,

93
00:06:01.470 --> 00:06:05.980
what will happen during the procedure,
they have reduced anxiety and less pain.

94
00:06:05.980 --> 00:06:10.690
Participation in the choice of every step
of the process including what type of

95
00:06:10.690 --> 00:06:14.790
anesthesia and how much of it
they receive, decreases pain.

96
00:06:14.790 --> 00:06:18.780
Atmosphere has been shown to make a
difference in a number of different ways.

97
00:06:18.780 --> 00:06:20.550
Music has been shown to help, but

98
00:06:20.550 --> 00:06:24.610
not when it's by the patient's choice and
by headphones.

99
00:06:24.610 --> 00:06:28.720
And we speculate that's because it blocks
out the communication with the provider.

100
00:06:29.880 --> 00:06:32.250
Shorter procedure time has
been shown to be helpful but

101
00:06:32.250 --> 00:06:35.770
more recent studies show that women would
gladly trade a few extra minutes of

102
00:06:35.770 --> 00:06:38.140
speculum time if it means that
their pain would be less.

103
00:06:38.140 --> 00:06:42.680
So there's lots of things that individual
providers do to minimize pain that we

104
00:06:42.680 --> 00:06:44.660
can't study individually.

105

00:06:44.660 --> 00:06:48.810
One study found that the difference
in provider was more significant than

106
00:06:48.810 --> 00:06:52.920
adding 100 micrograms of fentanyl for
pain control.

107
00:06:52.920 --> 00:06:57.530
So, in general, strategies for acute pain,
two of the primary strategies for

108
00:06:57.530 --> 00:07:00.340
acute pain,
are multi-modal pain management.

109
00:07:00.340 --> 00:07:03.900
So, meaning coming at pain
from multiple directions.

110
00:07:03.900 --> 00:07:07.763
Using more than one class of medication or
analgesic technique.

111
00:07:07.763 --> 00:07:11.586
Local, non-steroidal,
narcotic, benzodiazepine, and

112
00:07:11.586 --> 00:07:14.010
nonpharmacologic strategies.

113
00:07:14.010 --> 00:07:15.620
And then preemptive analgesic.

114
00:07:15.620 --> 00:07:17.250
Not saying, let's see if this hurts and

115
00:07:17.250 --> 00:07:19.870
then we'll give you some
treatment if it does.

116
00:07:19.870 --> 00:07:23.700
Not only does that increase
pain emotionally and mentally.

117
00:07:23.700 --> 00:07:29.850
It throws a direct nerve wind,
wind up stimulation.

118
00:07:29.850 --> 00:07:34.690
That means that the nerve will actually
fire more once it's already been fired and

119
00:07:34.690 --> 00:07:35.410
detected pain.

120
00:07:37.280 --> 00:07:39.590
Pain control options include,

121
00:07:39.590 --> 00:07:43.200
the different levels of sedation
called office based anesthesia.

122
00:07:43.200 --> 00:07:47.790
Minimal sedation, moderate sedation, and
deep sedation or general anaesthesia.

123
00:07:47.790 --> 00:07:50.820
Non steroidal anti inflammatory drugs,
the most common and

124
00:07:50.820 --> 00:07:53.170
least expensive which is ibuprofen.

125
00:07:53.170 --> 00:07:54.790
Acetamenaphin.

126
00:07:54.790 --> 00:07:57.330
Local anesthetic and

the non-pharmacologic.

127
00:07:57.330 --> 00:08:01.920
Of course the goal overall is safety,
quality of the experience and

128
00:08:01.920 --> 00:08:03.790
patient satisfaction.

129
00:08:03.790 --> 00:08:08.130
This is a study of what abortion
providers in the United States use for

130
00:08:08.130 --> 00:08:10.690
anesthetic, for
the majority of their abortions.

131
00:08:12.310 --> 00:08:18.005
About 46% use local anesthetic,
plus or minus oral medications, so,

132
00:08:18.005 --> 00:08:24.910
non-steroidal medicines, narcotics or
benzodiazepines, or none of the above.

133
00:08:24.910 --> 00:08:28.790
About 33% use moderate sedation,
plus local anesthetic, and

134
00:08:28.790 --> 00:08:33.390
then 20% more commonly use deep
sedation or general anesthetic.

135
00:08:33.390 --> 00:08:35.860
And this does not mean they use it for
every single patient, but for

136
00:08:35.860 --> 00:08:37.110
the majority of their patients.

137
00:08:39.430 --> 00:08:43.820
I like this study because it gave
women a choice of the two extremes.

138
00:08:43.820 --> 00:08:46.780
It said,
you can either have general anesthetic,

139
00:08:46.780 --> 00:08:48.600
where you be completely asleep.

140
00:08:48.600 --> 00:08:52.410
Or you can have just local,
and nothing else.

141
00:08:52.410 --> 00:08:56.610
So it gives us a sense that there's a
pretty big split in what matters to women,

142
00:08:56.610 --> 00:08:59.330
when they're not given
the options in between.

143
00:08:59.330 --> 00:09:02.680
So, in this study,
60% chose general, because it,

144
00:09:02.680 --> 00:09:06.648
the important factors to them were
avoiding pain, and having less anxiety.

145
00:09:06.648 --> 00:09:11.400
But still 40% of women said, I'll take
only local anaesthetic, because it's

146
00:09:11.400 --> 00:09:15.530
important to me that I can be walking out
of here, that I can avoid side effects and

147

00:09:15.530 --> 00:09:19.090
experience of anaesthetics,
and I want to feel more alert.

148
00:09:20.560 --> 00:09:26.300
The levels of sedation
are divided by patient response,

149
00:09:26.300 --> 00:09:28.692
not by the medications we use.

150
00:09:28.692 --> 00:09:33.570
But n, a number of organizations and
medical centers will define moderate,

151
00:09:33.570 --> 00:09:37.810
deep, and minimal sedation by certain
medications in the way they're given.

152
00:09:37.810 --> 00:09:40.540
You'll see that oral lorazapem and
hydrocodone for

153
00:09:40.540 --> 00:09:44.100
example, usually are minimal sedation,
but we know, of course, if

154
00:09:44.100 --> 00:09:48.360
you give a large amount of that, you could
get to the level of moderate sedation.

155
00:09:48.360 --> 00:09:50.990
In general, when you have,
when you're providing one level,

156
00:09:50.990 --> 00:09:55.980
you want to have the equipment and
the ability to be able to take care of

157
00:09:55.980 --> 00:09:59.100

women if they move up
one level of sedation.

158
00:09:59.100 --> 00:10:00.030
Without intending to.

159
00:10:03.290 --> 00:10:08.540
This is an, randomized trial that looked
at women for, who received all the same

160
00:10:08.540 --> 00:10:11.350
dose of oral medication or
the same dose of moderate sedation.

161
00:10:12.400 --> 00:10:14.550
I actually tried to do
a very similar study, and

162
00:10:14.550 --> 00:10:18.330
only had about 7% of women
who were willing to have,

163
00:10:18.330 --> 00:10:23.350
be randomized, to have their pain
control be determined by a study.

164
00:10:23.350 --> 00:10:27.820
The authors of this study were able to get
10% [LAUGH] of their population to agree,

165
00:10:27.820 --> 00:10:32.400
and we do get some good
information from this that,

166
00:10:32.400 --> 00:10:37.790
if you're going to give everyone the same
medications, you can get a improved pain

167
00:10:37.790 --> 00:10:44.090
control by giving IV medicines compared

to narcotic heavy oral medications.

168
00:10:44.090 --> 00:10:46.880
This is about a two, 25 out of 100, so.

169
00:10:46.880 --> 00:10:48.840
So about a 2.5 out of 10,

170
00:10:48.840 --> 00:10:54.750
reduction in pain compared to the,
from oral to IV medications.

171
00:10:54.750 --> 00:10:56.660
Fewer women had severe pain.

172
00:10:56.660 --> 00:11:00.830
Post op pain however, was equal between,
or similar between the two.

173
00:11:00.830 --> 00:11:03.420
And the women who received
oral medications,

174
00:11:03.420 --> 00:11:07.135
as would be expected since they linger
longer, had more post op nausea.

175
00:11:07.135 --> 00:11:14.630
Non-pharmacologic pain
medication is one of the most

176
00:11:14.630 --> 00:11:19.410
important aspects of pain control when
you're not, when women are going to

177
00:11:19.410 --> 00:11:24.830
be awake, when you're going to use oral
medications or light IV medications.

178

00:11:24.830 --> 00:11:29.525
We know that parti, as we mentioned
participation and decisions helps.

179
00:11:29.525 --> 00:11:30.680
Heat has been shown to help.

180
00:11:30.680 --> 00:11:34.100
We give women a heating pad
during all procedures, and

181
00:11:34.100 --> 00:11:37.520
I get multiple comments on how
appreciative they are of that.

182
00:11:37.520 --> 00:11:40.230
There's a number of counseling
techniques which will be discussed in

183
00:11:40.230 --> 00:11:42.310
another lecture as well.

184
00:11:42.310 --> 00:11:47.460
Vocal local or diversion of attention,
talking about things like vacations or

185
00:11:47.460 --> 00:11:49.760
their children, or meals.

186
00:11:49.760 --> 00:11:52.590
Or things that aren't going
to be emotionally charged.

187
00:11:52.590 --> 00:11:53.760
Is often very helpful.

188
00:11:53.760 --> 00:11:56.290
Of course, we ask women if that's okay.

189

00:11:56.290 --> 00:11:59.530
Because, for some people, that might seem
like you're making light of the situation.

190
00:12:00.580 --> 00:12:05.570
We often use music and kind of positive
suggestion that you're feeling that

191
00:12:05.570 --> 00:12:09.140
you might feel a cramp now because
the uterus is going back to normal.

192
00:12:09.140 --> 00:12:14.600
Hypnosis is an attentive,
guided focal concentration state, and

193
00:12:14.600 --> 00:12:18.480
although I've never been in a clinic
that routinely uses hypnosis, a lot of

194
00:12:18.480 --> 00:12:22.470
what we do with our counseling is very
similar to creating that kind of trust and

195
00:12:22.470 --> 00:12:27.060
attention between the providers and
the people in the room and the patient.

196
00:12:27.060 --> 00:12:31.660
One way that providers sometimes
think they will minimize pain during

197
00:12:31.660 --> 00:12:36.430
an aspiration, is by doing cervical
prep before a, before the procedure.

198
00:12:36.430 --> 00:12:40.690
So either placing dilators or
using misoprostol for dilation.

199

00:12:40.690 --> 00:12:43.270
So that they don't need to do
it at the time of the dilation.

200
00:12:43.270 --> 00:12:46.570
This has been shown in some
studies to decrease pain.

201
00:12:46.570 --> 00:12:49.580
But it's clear that it,
it prolongs the process and

202
00:12:49.580 --> 00:12:53.010
causes pain before the actual procedure.

203
00:12:53.010 --> 00:12:55.120
So that's a significant tradeoff and

204
00:12:55.120 --> 00:12:58.550
may not be worthwhile
routinely in early aspiration.

205
00:13:02.220 --> 00:13:07.610
Local anesthetic is one of the most
routine and important ways that

206
00:13:07.610 --> 00:13:12.670
we control pain during a procedure when
someone is not under general anesthesia.

207
00:13:12.670 --> 00:13:15.030
And this can be given in a number of ways.

208
00:13:16.300 --> 00:13:20.090
Intrauterine, so
where you instill it into the cavity,

209
00:13:20.090 --> 00:13:23.450
has been fairly widely evaluated.

210
00:13:23.450 --> 00:13:28.970
One particular study in abortion found
that injecting four concentrated lidocaine

211
00:13:28.970 --> 00:13:33.745
in the endometrium, made a significant
difference in pain control for abortion.

212
00:13:33.745 --> 00:13:36.060
We've also know that topical lidocaine.

213
00:13:36.060 --> 00:13:41.150
So applying it just to the cervix
either as a spray or a gel,

214
00:13:41.150 --> 00:13:47.140
decreases pain with taniculum placement
and possibly with other procedures.

215
00:13:47.140 --> 00:13:51.670
There is one randomized trial that
suggested it might be helpful with the,

216
00:13:51.670 --> 00:13:54.370
with the full abortion experience.

217
00:13:55.450 --> 00:14:00.080
Most commonly, what we do
are the injections of paracervical or

218
00:14:00.080 --> 00:14:02.990
intracervical injections
of local anesthetic.

219
00:14:02.990 --> 00:14:10.240
Cervical injections are generally given as
paracervicals so lateral to the cervix.

220
00:14:10.240 --> 00:14:14.480

Where the nerves enter into
the uterine tissue, or

221
00:14:14.480 --> 00:14:18.040
deeply into the stroma,
intracervical injections.

222
00:14:18.040 --> 00:14:21.640
We do know that when they're given deeply,
that that's more effective for

223
00:14:21.640 --> 00:14:25.710
pain control during abortion compared
to very superficial injections.

224
00:14:25.710 --> 00:14:29.195
And we also know that when injections
are given deeply into the stroma,

225
00:14:29.195 --> 00:14:31.550
that it can be very painful.

226
00:14:31.550 --> 00:14:35.770
In, there's a number of studies,
as well as abortion, that note that

227
00:14:35.770 --> 00:14:39.960
the cervical injections were the most
painful part of the, of the procedure.

228
00:14:39.960 --> 00:14:43.990
So minimizing pain with this cervical
injections is important part

229
00:14:43.990 --> 00:14:44.750
of pain control.

230
00:14:45.960 --> 00:14:52.030
One way I often do this is to
give a little bit as I go in, so

231
00:14:52.030 --> 00:14:56.500
giving medication as you go in, and trying
not to do it through the dense stroma.

232
00:14:56.500 --> 00:15:00.000
I do it laterally on the outside
as well through the ass, so

233
00:15:00.000 --> 00:15:03.850
that it doesn't have to penetrate
the deep, dense stroma.

234
00:15:03.850 --> 00:15:05.940
But still is able to get deeply and

235
00:15:05.940 --> 00:15:08.860
provide the medicine for
closer to the fundus.

236
00:15:12.650 --> 00:15:16.060
There are number of different
types of local anaesthetics,

237
00:15:16.060 --> 00:15:19.440
they're divided between amino esters and
amino amides.

238
00:15:19.440 --> 00:15:23.670
Amino esters include chloroprocaine
that is particularly chosen by

239
00:15:23.670 --> 00:15:26.870
some clinics because it has a very,
very fast half line of,

240
00:15:26.870 --> 00:15:31.030
half life of 23 seconds if it
gets an intravascular injection.

241
00:15:31.030 --> 00:15:34.810
Although that also means it has
a faster half life in tissue.

242
00:15:34.810 --> 00:15:38.290
Amino amides like lidocaine,
are more commonly used.

243
00:15:38.290 --> 00:15:41.980
They're also proposed to have
fewer allergic reactions.

244
00:15:41.980 --> 00:15:45.150
Bupivacaine is another common amino amide.

245
00:15:45.150 --> 00:15:47.000
Lidocaine because it's inexpensive and

246
00:15:47.000 --> 00:15:50.420
widely available is
the most common type used.

247
00:15:50.420 --> 00:15:53.290
But of course you'll need
to know what's used and

248
00:15:53.290 --> 00:15:57.740
what you have available and know the
details of the medication you're using.

249
00:15:57.740 --> 00:16:01.160
As an example of lidocaine,
the maximum dose for

250
00:16:01.160 --> 00:16:06.740
an adult is 300 milligrams of 1% or
30 mLs of 1%.

251
00:16:06.740 --> 00:16:10.810

They do also mention 200 mg in a pregnant
woman, but that's intended for

252
00:16:10.810 --> 00:16:13.530
women who are getting, during labor,
and there's a fetus to consider.

253
00:16:14.670 --> 00:16:19.410
There, they also give a weight based
max so that the 30 mL would be for

254
00:16:19.410 --> 00:16:21.860
a kind of average sized,
or medium sized person.

255
00:16:22.920 --> 00:16:26.729
Although if you are using epinephrine or
vasopressin, or

256
00:16:26.729 --> 00:16:30.880
vasoconstrictor, you can
use 35%t more medication.

257
00:16:30.880 --> 00:16:33.560
That's a considerably higher
dose than have been used in

258
00:16:33.560 --> 00:16:36.090
any studies of abortion pain.

259
00:16:36.090 --> 00:16:39.710
In fact,
many studies use less than 20 mLs.

260
00:16:39.710 --> 00:16:44.720
We now know from a number of studies
that 20 mLs of 1% or 20 milligrams of

261
00:16:44.720 --> 00:16:48.040
lidocaine is more effective than less,

and should be the minimum used.

262
00:16:48.040 --> 00:16:51.850
There's only one study that even looks at
more than that, and that's the study I

263
00:16:51.850 --> 00:16:55.288
mentioned earlier that did intrauterine
Lidocaine as part of the dose.

264
00:16:59.456 --> 00:17:03.610
Preventing local anesthetic
toxicity is of course, a concern.

265
00:17:03.610 --> 00:17:08.950
One nice thing about lidocaine is that
women get mild symptoms at very low and

266
00:17:08.950 --> 00:17:10.890
still safe serum levels.

267
00:17:10.890 --> 00:17:13.580
I mean, it's not nice that they
get symptoms, but it can make you

268
00:17:13.580 --> 00:17:17.210
feel safer that you know that they're
getting a little bit of nausea or

269
00:17:17.210 --> 00:17:20.030
a little bit of ringing in their ears,
and you know you can wait and

270
00:17:20.030 --> 00:17:22.160
watch it go away before you give more.

271
00:17:22.160 --> 00:17:24.020
And that's still at a very safe level.

272

00:17:25.760 --> 00:17:29.000
Other ways to prevent local anesthetic to,
anesthetic toxicity,

273
00:17:29.000 --> 00:17:33.080
including aspirating as
the needle is going in, monoring,

274
00:17:33.080 --> 00:17:37.260
monitoring the total dose, monitoring
the patient's symptoms, as we discussed.

275
00:17:37.260 --> 00:17:39.880
I often stop halfway through and

276
00:17:39.880 --> 00:17:43.260
check to see that they don't have
symptoms before I give more.

277
00:17:43.260 --> 00:17:45.750
Using larger volumes of
a more dilute solution.

278
00:17:45.750 --> 00:17:50.300
So, if you do get one injection
intervascularly, it's less of a concern.

279
00:17:50.300 --> 00:17:52.160
The multiple sites does the same things.

280
00:17:52.160 --> 00:17:54.940
And then of course,
preparing for any toxic or

281
00:17:54.940 --> 00:17:59.400
allergic reactions that patients could
possibly have in rare occasions.

282
00:17:59.400 --> 00:18:04.455
So most abortion providers have been

using cervical block for many decades and

283
00:18:04.455 --> 00:18:06.070
feel that it works well.

284
00:18:07.590 --> 00:18:10.570
Often not well enough, but
works compared to nothing.

285
00:18:10.570 --> 00:18:14.920
Although finally we have our randomized
control trial that demonstrates that.

286
00:18:14.920 --> 00:18:18.780
So this trial used 20 mLs
of 1% buffered lidocaine.

287
00:18:18.780 --> 00:18:20.330
Did slow deep injections.

288
00:18:20.330 --> 00:18:25.800
They did wait for three minutes,
and clearly we see that

289
00:18:25.800 --> 00:18:30.450
with aspiration,
there's a significant decrease in pain.

290
00:18:30.450 --> 00:18:35.150
They still had a significant amount of
women with, who received the medication,

291
00:18:35.150 --> 00:18:36.050
received the block.

292
00:18:36.050 --> 00:18:38.420
Who had pain with the block and
with dilation.

293

00:18:39.830 --> 00:18:44.030
I would say that I still find
that this almost six out of ten.

294
00:18:44.030 --> 00:18:49.780
58 over 100 is higher than I find
acceptable for average pain with abortion.

295
00:18:49.780 --> 00:18:56.360
And I feel that with dilation, I can
almost always have very little pain if any

296
00:18:56.360 --> 00:18:59.850
with dilation because I will continue to
get medication until they don't have any.

297
00:19:03.900 --> 00:19:09.820
Other evidence that can help us inform how
we do a block that better controls pain.

298
00:19:09.820 --> 00:19:14.270
Is as I mentioned doing deep injections,
but trying to minimize the pain from them.

299
00:19:14.270 --> 00:19:18.880
Larger volume, at least 20 mLs and
20 milligrams.

300
00:19:18.880 --> 00:19:21.620
Slow injection, buffering the lidocaine,

301
00:19:21.620 --> 00:19:24.440
adding a small amount of sodium
bicarb decreases the pain.

302
00:19:24.440 --> 00:19:27.652
You can't do this with bupivacaine or
procaine.

303
00:19:27.652 --> 00:19:32.580

And routinely mating, waiting a very long
time has not been shown to be helpful,

304
00:19:32.580 --> 00:19:39.480
although some studies and
the of the anesthetic

305
00:19:39.480 --> 00:19:43.720
would suggest that a small, a few
minutes of waiting would be beneficial.

306
00:19:45.090 --> 00:19:48.220
Adding vasopressin also
can decrease bleeding,

307
00:19:48.220 --> 00:19:52.875
although that's rarely an issue in early
abortion, decreases the risk for, need for

308
00:19:52.875 --> 00:19:56.790
re-aspiration, increases the amount
of block that can be used as we

309
00:19:56.790 --> 00:19:59.640
just mentioned, and
may facilitate dilation.

310
00:19:59.640 --> 00:20:01.850
It's been shown that some people,

311
00:20:01.850 --> 00:20:05.270
at least in one study of hysteroscopy,
that it seemed to make dilation easier.

312
00:20:05.270 --> 00:20:11.093
[SOUND] One example that shows
how we pull this together and

313
00:20:11.093 --> 00:20:16.792
how we do our cervical block at UCSF,

is we create our own

314
00:20:16.792 --> 00:20:23.969
mixture of 0.5% lidocaine that we buffer,
and add vasopressin.

315
00:20:23.969 --> 00:20:29.391
And we intend to start with
this whole 40 mLs, and, the,

316
00:20:29.391 --> 00:20:34.290
we inject about 3 ccs
at the tenaculum site.

317
00:20:34.290 --> 00:20:37.670
My opinion is that no one should ever
feel a tenaculum placed, because it's so

318
00:20:37.670 --> 00:20:39.900
easy to block that so
that they never feel it.

319
00:20:40.910 --> 00:20:45.100
At a little over 20 mLs given
paracervically, either at three and

320
00:20:45.100 --> 00:20:47.920
nine if you think about
the cervix as a clock face.

321
00:20:47.920 --> 00:20:52.490
We often think about it 3 o' clock and
9 o' clock as where the nerves come in.

322
00:20:52.490 --> 00:20:57.490
Or 3, 9 and 6 o' clock to be able to
reach where the uterus cycles are closer.

323
00:20:57.490 --> 00:20:59.300
Or as a four-point.

324
00:20:59.300 --> 00:21:02.710
I don't think, its, its never been shown
clearly that one is better than the other,

325
00:21:02.710 --> 00:21:06.604
the randomized trial I mentioned
earlier used the four-point injection.

326
00:21:06.604 --> 00:21:10.480
And then I used the remaining to go
to through the os, and inject at

327
00:21:10.480 --> 00:21:14.480
the internal os, or even in the fundus,
especially in the early pregnancies.

328
00:21:14.480 --> 00:21:16.650
Sometimes we'll do this intercavitary.

329
00:21:16.650 --> 00:21:22.406
But mostly we've been doing
into the stroma through the And

330
00:21:22.406 --> 00:21:24.370
have found that this can make an in,

331
00:21:24.370 --> 00:21:29.670
a big difference of numbing the nerves
that we're going to directly stimulate.

332
00:21:29.670 --> 00:21:33.570
We also inject slowly, and
inject a little bit as the needle enters,

333
00:21:33.570 --> 00:21:35.990
really trying to minimize
pain with the block.

334

00:21:35.990 --> 00:21:38.260
As I mentioned earlier,
after I do about half of it.

335
00:21:38.260 --> 00:21:39.120
I wait for a minute and

336
00:21:39.120 --> 00:21:43.390
sit on my hands to make sure that women
don't have any symptoms from the block.

337
00:21:43.390 --> 00:21:45.990
And then most importantly,
I check to see if they need more.

338
00:21:45.990 --> 00:21:50.330
If I, if they feel any pain with
any dilation, I will stop and

339
00:21:50.330 --> 00:21:51.500
use more medication.

340
00:21:51.500 --> 00:21:52.590
And with bay suppressant,

341
00:21:52.590 --> 00:21:57.170
I have the option of using up to
20 MLs of 1% lidocaine after this.

342
00:21:57.170 --> 00:22:01.570
If I really need to, and
I rarely need to use that much before,

343
00:22:01.570 --> 00:22:04.330
to be able to block all
the pain with dilation.

344
00:22:04.330 --> 00:22:07.610
So, in summary,
it's important to individualize care,

345
00:22:07.610 --> 00:22:11.760
especially in women who are not
going to be asleep for a procedure.

346
00:22:11.760 --> 00:22:15.130
Talking to patients about what
the reasonable pain control options are,

347
00:22:15.130 --> 00:22:18.030
even if you can't offer them or
you would recommend against them,

348
00:22:18.030 --> 00:22:19.580
I think it's important.

349
00:22:19.580 --> 00:22:21.300
And if you need to rely on the block.

350
00:22:21.300 --> 00:22:26.040
If women are going to be somewhat or
completely awake, using a higher volume,

351
00:22:26.040 --> 00:22:30.570
making sure you get some of the medication
deeply, aiming for all the nerves that you

352
00:22:30.570 --> 00:22:34.900
are going to stimulate, which are general
principles of using local anesthetic.

353
00:22:34.900 --> 00:22:40.590
And checking and using more if needed,
are ways to improve our blog.

354
00:22:40.590 --> 00:22:43.800
So we know that pain
skills aren't perfect, but

355

00:22:43.800 --> 00:22:47.910
they do provide valuable information that
let us know how women are doing with

356
00:22:47.910 --> 00:22:51.380
the pain control that we are offering or
using for them.

357
00:22:51.380 --> 00:22:54.793
So I hope that this talk
will help encourage you to

358
00:22:54.793 --> 00:22:59.289
prioritize pain control for
uterine aspiration and to do what we

359
00:22:59.289 --> 00:23:04.472
can with the tools that we have to
minimize discomfort and pain for women.