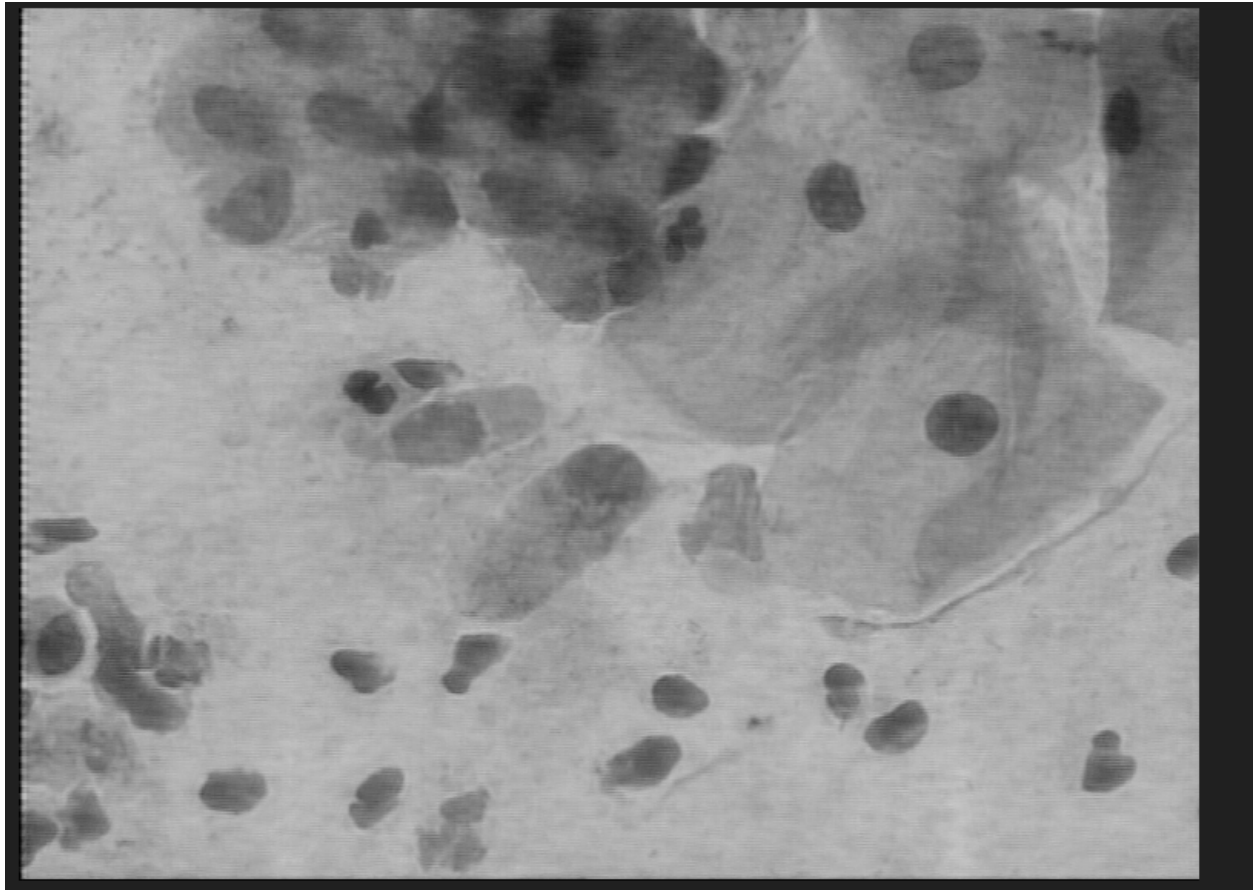


1)initial example before edge detection



```
[[ 0 0 2 ... 54 54 112]
 [ 0 0 0 ... 37 26 20]
 [ 0 0 0 ... 37 54 54]
 ...
 [ 0 0 3 ... 9 9 12]
 [ 0 0 1 ... 5 5 8]
 [ 0 0 0 ... 0 0 0]]
```

Example After implementing sobel edge detection

```
[1. 0. 0. ... 1. 1. 1.]
[0. 0. 0. ... 1. 1. 1.]
...
[1. 0. 0. ... 0. 0. 0.]
[0. 0. 0. ... 0. 0. 0.]
[0. 0. 0. ... 0. 1. 0.]]
```

Example result after dilation

```
[[119 147 161 ... 0 0 0]
```

```

[119 147 161 ... 0 0 0]
[119 147 161 ... 0 0 0]
...
[157 173 175 ... 0 0 0]
[149 165 169 ... 0 0 0]
[121 139 147 ... 0 0 0]]

```

Example result after erosion

```

[[ 1 1 1 ... 1 1 1]
 [ 1 1 1 ... 1 1 1]
 [ 1 1 1 ... 151 1 1]
...
 [ 1 1 1 ... 1 1 1]
 [ 1 1 1 ... 1 1 1]
 [ 1 1 1 ... 1 1 1]]

```