To calculate the probability of having bowel cancer given a positive blood test, we use Bayes' theorem. Specifically, we need to find \( P(\text{Bowel cancer} = Y \mid \text{Blood test} = +) \).

The formula for conditional probability is:

\[ P(A \mid B) = \frac{P(A \cap B)}{P(B)} \]

Here, \( A \) is "Bowel cancer = Y" and \( B \) is "Blood test = +".

From the table:

- \( P(\text{Bowel cancer} = Y \cap \text{Blood test} = +) = 2 \)

- \( P(\text{Blood test} = +) = P(\text{Bowel cancer} = Y \cap \text{Blood test} = +) + P(\text{Bowel cancer} = N \cap \text{Blood test} = +) = 2 + 18 = 20 \)

So, we have:

\[ P(\text{Bowel cancer} = Y \mid \text{Blood test} = +) = \frac{P(\text{Bowel cancer} = Y \cap \text{Blood test} = +)}{P(\text{Blood test} = +)} = \frac{2}{20} = \frac{1}{10} = 0.1 \]

Therefore, the probability of having bowel cancer given a positive blood test is \( \boxed{0.1} \).