The correct answer is \*\*(B) Invalid.\*\*

Here's a breakdown of why:

\* \*\*What a p-value represents:\*\* A p-value represents the probability of observing results as extreme as, or more extreme than, the ones obtained in the study, \*assuming the null hypothesis is true\*. In this context, the null hypothesis is likely that the drug has \*no\* effect on vision loss (or perhaps, that it is \*worse\* than the control).

\* \*\*Why the interpretation is invalid:\*\* The p-value of 0.04 does \*\*not\*\* directly tell us the probability that the drug is \*not\* effective. It only tells us the probability of the observed data (or more extreme data) if the drug were ineffective. A p-value focuses on the observed data relative to a null hypothesis. It doesn't tell us directly about the probability of a hypothesis being true. The p-value is not the probability of the null hypothesis being true.

\* The correct way to state the null hypothesis, in this context, would be that the drug has no effect on vision loss.

\*\*In Summary:\*\* The p-value is a measure of evidence \*against\* the null hypothesis, not a direct measure of the probability of the null hypothesis or the alternative hypothesis being true. Therefore, interpreting the p-value as the probability the drug is ineffective is an incorrect interpretation.