Is it possible to predict with a usual telescope how sun- spots will change in form?

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The activity of the sunspot is closely related to the solar wind that affects the environment around the Earth. We examined whether the day change of the sunspots can be predicted in advance from the observation using a commercially available amateur observation device (if possible, as in the current weather forecast).

We compared the observation results obtained by imaging observation between visible light and Hα light in chronological order to investigate characteristic phenomena associated with the change. Based on them, we would like to try to predict the appearance of sunspots and subsequent development and shrinkage, and compare them with the actual change.

The observation seems to show that there is a correlation between the appearance of an active region preceding the appearance of sunspots with Hα light and the development of sunspots seen with visible light and the change in the active region seen by Hα light.

Based on these results, We would like to try to predict the subsequent development and shrinkage of the sunspots and we want to consider how much prediction is possible.

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