

This is a summary of a clinical study in patients with cancer. It is written for the general reader and uses language that is easy to understand. It includes information about how researchers did the study and what the results were. The simplified title for the study is: 'A study to identify the highest tolerated dose of nintedanib with chemotherapy in patients with advanced cancer of the ovaries, fallopian tubes, or the abdominal lining that has returned'.

We thank all patients who took part in this study. Through your participation, you helped researchers answer important questions about nintedanib and the treatment of cancer.

What was this study about?

Researchers wanted to find the highest dose of nintedanib (BIBF 1120) that patients could tolerate when combined with chemotherapy. The patients in this study had advanced cancer of the ovaries, fallopian tubes, or the abdominal lining (peritoneum). The patients had already been treated with chemotherapy, but the cancer had returned. Researchers collected information on the side effects of nintedanib.

This study started in March 2011 and finished in April 2016. The sponsor of this study was Boehringer Ingelheim.

Why was the study needed?

Advanced ovarian, fallopian tube, and peritoneal cancer is difficult to treat. Even after treatment, the cancer often returns. Therefore, new treatments are needed for these types of cancer. To find out if a new medicine will help these patients, researchers must first learn what the highest dose is that patients can take before side effects become too serious.

Which medicines were studied?

Nintedanib (BIBF 1120) is a medicine which is taken as a capsule by mouth. During the study, patients also received chemotherapy. The chemotherapy medicines were called carboplatin and pegylated liposomal doxorubicin (PLD).

Who participated in the study?

All patients were adult women who had at least 1 course of previous treatments for ovarian, fallopian tube, or peritoneal cancer. Patients had received up to 3 series of chemotherapy before the study. Patients must have been free of cancer for at least 6 months since their last treatment. Patients must have been able to have carboplatin and PLD chemotherapy during the study.

Overall, 19 patients took part in the study. All of the patients were in Spain. The average age was 55 years. The youngest patient was 36 years old and the oldest patient was 71 years old.

How was this study done?

Researchers wanted to know which dose would be the highest that patients could tolerate without having certain side effects. These were side effects that would limit the dose a patient could take if they occurred during the first 28 days of treatment:

- Life-threatening blood problems
- Severe or life-threatening decreases in white blood cells (neutropenia) or blood clotting (platelets)
- Moderate to severe diarrhoea despite appropriate treatment
- Abnormal results of liver tests
- Other severe side effects

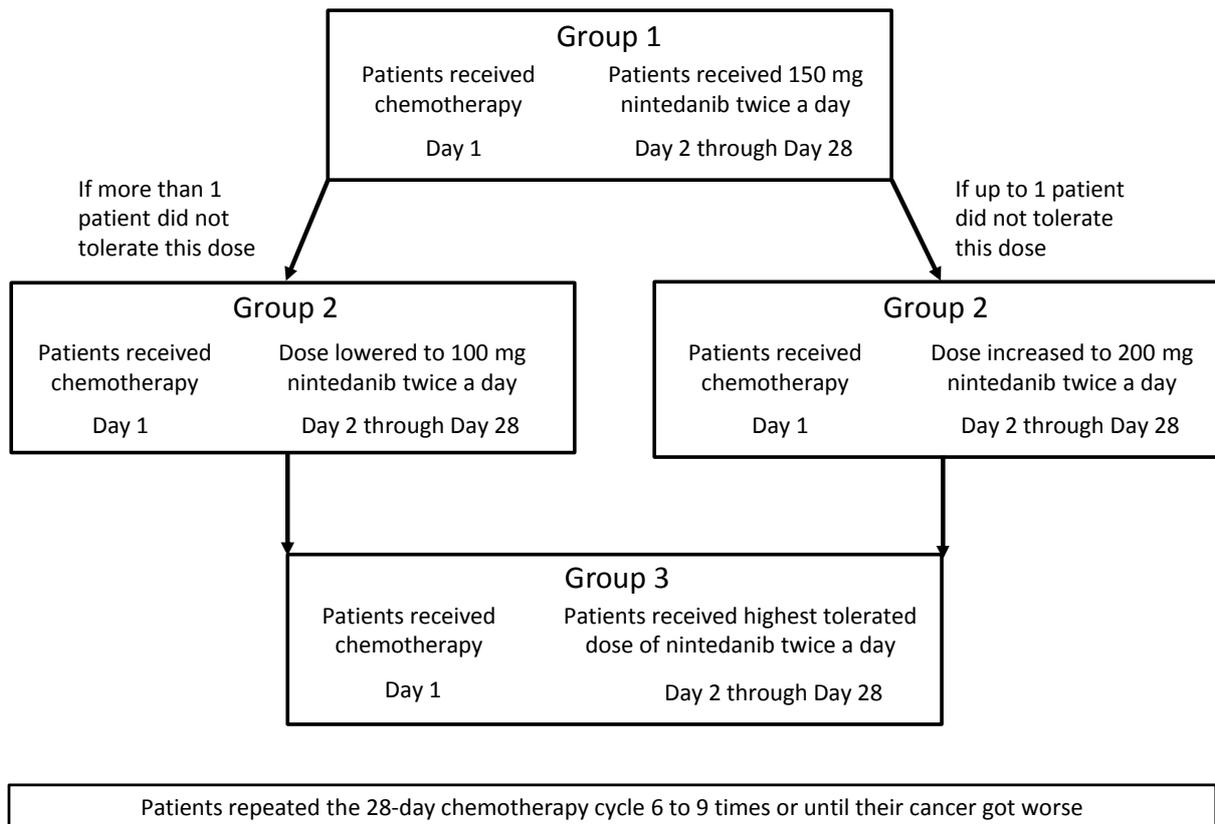
Both the study doctor and the patients knew what dose of nintedanib they were getting. Patients took the study medicine and the chemotherapy during time periods called treatment cycles. A treatment cycle lasted 28 days. On the first day of a cycle, patients received the intravenous (IV) chemotherapy. On all other days, patients took the nintedanib dose twice each day by mouth (capsules).

Researchers divided patients into 2 groups. The first group of 7 patients was to take the starting dose of 150 milligrams (mg) nintedanib twice daily.

If dose-limiting side effects occurred in no more than 1 patient during the first treatment cycle, the dose of nintedanib would be increased to 200 mg twice daily for the next group of 6 patients. If dose-limiting side effects occurred in more than 1 patient during the first treatment cycle, the dose of nintedanib would be lowered to 100 mg twice daily.

After the highest tolerable dose was determined, a third group of 6 new patients entered the study. These patients took the highest tolerated dose of nintedanib and the chemotherapy. Researchers wanted to know what side effects these additional patients had at the highest tolerated dose.

Chemotherapy cycles were repeated 6 to 9 times, or until the patient's cancer got worse. After the patients had completed their cycles of chemotherapy, they continued to take nintedanib alone until their cancer progressed or they experienced a serious side effect. The figure on the next page shows the design of this study.



What were the results of this study?

The highest dose of nintedanib that patients tolerated was 200 mg twice daily. Only 1 patient in Group 1 had a dose-limiting event during the first treatment cycle. This event was abnormal results of liver tests. The tests showed large increases in liver enzymes. Similarly, only 1 of 6 patients who took 200 mg of nintedanib twice daily had a dose-limiting event during the first treatment cycle. This patient's event was also an increase in liver enzymes. Therefore, an additional group of 6 patients entered the study and were treated with the 200 mg dose twice daily.

What side effects did patients have?

Doctors keep track of all health problems patients have during a study. Some of these health problems might be caused by the study medicines, and some by other medicines taken by the patient. Others might be caused by the disease, and some have yet a different cause. Here we describe health problems that the doctors thought were caused by the study medicines. These health problems are called side effects.

A total of 18 patients (95%) had at least 1 side effect that researchers believed was related to nintedanib: 6 patients (86%) in Group 1 who took 150 mg nintedanib twice daily and all 12 patients (100%) in Group 2 who took 200 mg nintedanib twice daily. As the table below shows, the most common side effects related to nintedanib were diarrhoea, nausea, vomiting, and increased liver enzymes.

| | Nintedanib 150 mg 7 patients | Nintedanib 200 mg 12 patients |
|---|---|--|
| Patients who had side effects related to the study medicine | 6 patients (86%) | 12 patients (100%) |
| Diarrhoea | 5 patients (71%) | 11 patients (92%) |
| Nausea | 5 patients (71%) | 11 patients (92%) |
| Increased liver enzymes (Increased alanine aminotransferase) | 4 patients (57%) | 11 patients (92%) |
| (Increased aspartate aminotransferase) | 5 patients (71%) | 10 patients (83%) |
| Vomiting | 3 patients (43%) | 9 patients (75%) |

Two patients had serious side effects that the researchers believed were related to the study medicine. One patient who received 150 mg nintedanib had liver enzymes that were too high. One patient who took 200 mg nintedanib twice daily was hospitalized due to a blood clot in the lung.

Some patients in the study had serious side effects. A side effect was serious if it caused the patient to go to the hospital or stay longer in the hospital. Or if it needed a doctor's immediate attention, or was life-threatening.

Are there follow-up studies?

There were no follow-up studies.

Where can I find more information?

You can find the scientific summaries of the study results at these websites:

www.trials.boehringer-ingelheim.com search for the study number: BI 1199.119

www.clinicaltrials.gov search for the NCT number: NCT01314105

The full title of the study is:

'Phase I dose escalation trial to determine the maximum tolerated dose of BIBF 1120 in combination with carboplatin and pegylated liposomal doxorubicin (PLD) in patients with a first, second or third platinum-sensitive relapse of advanced epithelial ovarian cancer, fallopian tube carcinoma or primary peritoneal cancer'.

Important notice

This summary shows only the results from one study and may not represent all of the knowledge about the medicine studied. Usually, more than one study is done to find out how well a medicine works and the side effects of the medicine. Other studies may have different results.

You should consult the prescribing information for your country to get more information on the medicine studied, or ask your physician about the medicine. You should not change your therapy based on the results of this study without first talking to your physician. Always consult your physician about your specific therapy.

Boehringer Ingelheim has provided this lay summary in accordance with transparency obligations. This lay summary is intended for audiences located within the European Union.

©Boehringer Ingelheim International GmbH.