INTRODUCTION

In most recent decades there has been a wide improvement in zeal for drug discovery from a natural origin in uniqueness to the synthetics which are seen as unsafe to general population and environment. Medicinal plants and traditional systems of remedy have been always associated as therapeutic plants are the backbone of these systems. India has a rich natural heritage legacy of traditional systems of medicine the progression of these traditional systems of medicines with the perspectives of safety, efficacy, and quality will urge to defend the traditional heritage [1]. Ebenaceae are a group of blooming with the perspectives of safety, efficacy, and quality will urge to defend the traditional heritage [1]. Ebenaceae are a group of blooming plants, which includes ebony and persimmon. The family has species of trees and bushes in two genera, Diospyros and Euclea which are widespread mostly in tropics and subtropics [2]. The genus Diospyros montana (Roxb.) (Ebenaceae) was found in subtropical and tropical territories of the China, India, Indonesia, and the Malay Peninsula. The genus Diospyros consists of 700 species of deciduous and evergreen trees, shrubs, and small bushes out of which 59 of which are spread in India [3]. D. montana (Roxb.) is a little tree with slim stem and smooth bark; youthful shoots are glabrous or pubescent. Leaves are alternate, ovate to oblanceolate or elliptical or sub acuminate with base usually rounded, softly pubescent or tomentose when young ultimately glabrescent [4]. The plant and parts, particularly the natural product have been utilized as an anti-inflammatory and antipyretic agent in numerous traditional systems of medicine. Literature reveals phytochemical and pharmacological studies on 13 Diospyros species [5]. D. montana (Roxb.) exhibits anthelmintic, antineoplastic, anti-inflammatory, antimalarial, antiviral, prostaglandin synthesis inhibitory, hypolipidemic, antitumor, and antileukemic activity. In Indian ethnomedicinal, this plant is locally named as Ebony and its bark is used in therapy of jaundice and gum and is prescribed in tuberculosis while roots are used as an abortifacient [6]. Chemistry of free radical is complicated and it caused a noteworthy impediment in the identification of free radical scavenging agent. To withstand this issue, the potential antioxidant agent is evaluated for in vitro radical scavenging model, and such methodologies develop the possibility of antioxidant activity [7]. The biological systems have antioxidant defense mechanism which safeguards it against oxidative damages. However, this natural antioxidant mechanism can be incompetent; therefore, nutritional ingestion of antioxidant combinations is essential. Phytoconstituents contain a wide array of free radical scavenging molecules such as flavonoids, vitamins, polyphenols, and terpenoids that are rich in antioxidant activity [8]. Free radical reactions have been implicated in the pathology of many human diseases including atherosclerosis, ischemic heart disease, the aging process, inflammation, diabetes, immune depression, neurodegenerative condition, and other degenerative disorders [9]. Free radicals are formed in tissue cells by many endogenous and exogenous reasons such as ionizing radiation, chemical, and metabolites [10]. These free radicals, which are atoms or molecules with an unpaired electron, are capable of reversibly or irreversibly damaging compounds of all biochemical classes, including nucleic acids, proteins, and free amino acids, lipids and lipoproteins, carbohydrates, and connective tissue macromolecules [11]. Drugs with multiple mechanisms of protective action, including antioxidant properties, may be one-way forward in minimizing tissue injury in human disease [12]. The polyphenolic and flavonoid phytochemical present in the extracts appeared to be...
accountable for the antioxidant activity. Polyphenolic compounds found in plant extracts are flavonoids and phenolic acids [13]. In absorption or neutralization of free radicals, phenolics play a significant role through antioxidant activity [14]. Polyphenols and flavonoids also enhance the level of the cellular antioxidative system and induce the cytochrome P-450 resulting in detoxifying the activity of intracellular carcinogens [15]. In this present work, we expect to build up a connection between the phytoconstituents present in the leaves and its different pharmacological activities. Hence, in this work, we endeavored to investigate phytochemical constituents and antioxidant activity of the leaves of *D. montana* (Roxb.).

**METHODS**

**Collection of plant material**

Fresh leaves of *D. montana* (Roxb.) collected from neighborhood cantonment area of Belgum district (Karnataka).

**Authentication of plant material**

The leaves of *D. montana* (Roxb.) were authenticated by Dr. B. D. Huddar at the Department of Botany Shri Kadasiddheshwar H.S. Kotambhari Science Institute, Vidyanagar, Hubli, Karnataka. A specimen sample (DM-08) is deposited in the Department of Pharmacognosy, at KLES college of Pharmacy Hubli, Karnataka.

**Drying and size reduction of *D. montana* (Roxb.) leaves**

The leaves of *D. montana* (Roxb.) were cleaned to evacuate the adhered foreign material and were washed under tap water, air-dried, homogenized to the fine powder, and stored in hermetically sealed bottles.

**Chemicals and instruments**

All the chemicals used in this research were of analytical grade and were obtained from Loba Chemicals Limited India Mumbai, India.

**Preparation of extracts**

Fresh shade dried leaves of *D. montana* (Roxb.) were powdered and extracted with ethanol by continuous hot percolation method using a Soxhlet apparatus. The ethanolic extract was concentrated under reduced pressure using a rotary evaporator and dried in vacuum. A portion of the crude ethanolic extract was suspended in water and successively re-extracted with petroleum ether, chloroform, and ethyl acetate. After distillation, the resultant extracts were collected in a round-bottom flask and concentrated under reduced pressure using a rotary evaporator and dried in vacuum. A specimen sample (DM-08) is deposited in the Department of Pharmacognosy, at KLES college of Pharmacy Hubli, Karnataka.

**Preliminary phytochemical analysis**

The ethanolic extract and its fractions of petroleum ether, chloroform, and ethyl acetate were subjected to phytochemical screening for detections of phytoconstituents as carbohydrates, glycosides, phytosterol steroids, triterpenoids, tannins, phenolics, alkaloids, and flavonoids present in them using standard protocols [18-21].

**Thin-layer chromatography (TLC)**

On the basis of the preliminary phytochemical analysis, ethanolic extract and fractions were subjected to TLC. The semi-solid extract was subjected to chromatography by taking a small amount of the extract diluted with a drop of the solvent. These extracts were analyzed as per the conventional one-dimensional ascending method using the standard procedure. In this method, pre-coated silica gel plate (Silica Gel 60F254) was used. Glass capillaries were used to apply the spot on the TLC plate, approximately 1 μL of sample volume applied using capillary at distance of 1 cm and the 3 tracks and developed in airtight chamber already saturated with the same solvent system. In the system, a qualitative analysis was performed using short-path thin-layer chromatography. The space between three bands was kept 15 mm. 1% concentration solution of 5 μL from each of the three extracts (ethanol, chloroform, and petroleum ether) was set as a spot.

**Antioxidant activity**

**Superoxide anion radical-scavenging activity**

To 0.5 mL of different concentration of extracts and standard butylated hydroxytoluene (BHT) (200–1000 μg), 1 mL of alkaline dimethyl sulfoxide, and 0.2 mL nitroblue tetrazolium 20 mM (50 mg in 10 mL phosphate buffer pH 7.4) were added. The absorbance was measured at 560 nm. The experiment was performed in triplicate [27].
Nitrile oxide inhibition activity

About 1 mL of sodium nitroprusside solution (10 mM) was mixed with 1 mL of test extract/ascorbic acid 20 μg in phosphate buffer (pH 7.4). The test extracts were prepared in different concentrations (200–1000 μg). The aliquots were incubated at 25°C for 150 min. To 1.5 mL of the incubated solution, 1 mL of Griess’ reagent (1% sulfanilamide, 2% o-phosphoric acid, and 0.1% naphthyl ethylenediamine dihydrochloride) was added. Absorbance was read at 546 nm and percentage inhibition calculated. The nitrile oxide radicals scavenging activity was calculated according to the following equation:

\[
\% \text{ Inhibition} = 100 \times \frac{A_{\text{blank}} - A_{\text{extract}}}{A_{\text{blank}}}
\]

RSC = Radical scavenging capacity; \(A_{\text{blank}}\) = Absorbance of a blank; \(A_{\text{extract}}\) = Absorbance of a sample. BHT was used as a positive control. From the obtained RSC values, the inhibitory concentration (IC_{50}) values were calculated, which represents the concentration of the scavenging compound that caused 50% neutralization [28].

The β-carotene/linoleic acid antioxidant activity

β-carotene bleaching method measured the ability of an antioxidant to inhibit lipid peroxidation. In this method, β-carotene and linoleic acid go through a quick discoloration in the absence of an antioxidant. 1 mL of β-carotene solution in chloroform (2 mg in 10 mL) was pipetted into a round bottom flask containing 40 μL of linoleic acid and 500 μL of Tween 20. After the removal of chloroform using a rotary vacuum evaporator at 45°C, 100 mL of deionized water was added with vigorous agitation. A 2 mL aliquot of the emulsion was added to each test tubes containing various concentrations of test agents. The absorbance was measured at 470 nm immediately against a blank consisting of the emulsion without β-carotene and after 3 h of incubation at 50°C. All determinations were carried out in quadruplicate. The antioxidant activity of test agents was evaluated in terms of bleaching of β-carotene using the following formula:

\[
AA = \left[1 - \frac{(A_0 - A_t)}{(A_0 - A_i)}\right] \times 100
\]

Where: \(A_0\) and \(A_{i0}\) are the absorbance measured at 0 time of incubation for the test sample and control, respectively, and \(A_t\) and \(A_{i1}\) are the absorbance measured in the test sample and control, respectively, after 3 h of incubation [29].

RESULTS AND DISCUSSION

Preliminary phytochemical screening

Phytochemical screening of extracts of D. montana (Roxb.) leaves shows the presence of saponins, triterpenoids, steroids, flavonoids, and tannins (Table 1).

The preliminary qualitative analysis of various extracts (petroleum ether, chloroform, and ethanol) confirmed the presence of triterpenoids, steroids, saponins, flavonoids, and tannins. The TLC analysis of ethanolic extract showed the presence of six spots with different Rf values that can be useful for further isolation (Table 2 and Fig. 1).

HPTLC fingerprinting

Ethanolic extract of leaves of D. montana (Roxb.) showed 10 spots at the maximum Rf 0.02, 0.07, 0.11, 0.2, 0.29, 0.39, 0.44, 0.66, 0.83, and 0.93. Table 3 and Fig. 2 depicts the presence of at least 10 different components in the ethanolic extract. It is also clear from Table 3 and the chromatogram as shown in Fig. 2 that out of 10 components, the components with Rf values 0.29, 0.39, 0.44, 0.88, and 0.93 at 366 nm were found to be more predominant (percentage area is more with 24.82%, 22.37%, 16.87%, 14.17%, 11.46%, and 8.36%, respectively) and remaining components were found to be very less in quantity (percentage area for all the spots was ≤1.77%). Thus, the developed chromatogram will be specific with selected solvent system cyclohexane:ethyl acetate (80:20). Rf value serves the better tool for standardization of the drug. Characteristic TLC/HPTLC fingerprinting of particular plant species will not only help in the identification and quality control of a particular species but also provide basic information useful for the isolation, purification, characterization, and identification of marker chemical compounds of the species. Thus, the present study will provide sufficient information about the therapeutic efficacy of the drug and also in the identification, standardization, and quality control of the medicinal plant.

Table 1: Qualitative phytochemical analysis of D. montana (Roxb.) leaves

| Phytochemicals | Petroleum ether extract | Chloroform extract | Ethyl acetate extract | Ethanol extract |
|----------------|-------------------------|--------------------|----------------------|---------------|
| Carbohydrates  | +                       | +                  | -                    | +             |
| Glicosides     | -                       | -                  | +                    | -             |
| Phytosterol and steroids | +                | +                  | +                    | -             |
| Triterpenoids  | +                       | -                  | +                    | +             |
| Tannins and phenolics | -               | -                  | -                    | -             |
| Alkaloids      | -                       | -                  | -                    | -             |
| Flavonoids     | +                       | +                  | -                    | +             |

+: Present, -: Absent, D. montana: Diapryos montana

Total flavonoid contents

The result of total flavonoid contents of crude extracts of D. montana (Roxb.) leaves is given in Fig. 3. Total flavonoid contents of extracts are shown in Table 4. Among the two crude extracts, the ethanolic extract contains highest (1.63±0.38 mg/g) amount of flavonoids containing compounds followed by ethyl acetate (1.48±0.51 mg/g), that is, quercetin/g weight. Based on this study, we proposed that the potent free radical-scavenging and antioxidative activity of medicinal plant might result from its high contents of flavonoid type compounds.

Total phenolic content

The total phenolic contents of D. montana (Roxb.) leaves extracts were determined using the Folin–Ciocalteu’s reagent. The values obtained for the concentration of total phenols are expressed as mg of GA/g of drug and also in the identification, standardization, and quality control of a particular species but also provide basic information useful for the isolation, purification, characterization, and identification of marker chemical compounds of the species. Thus, the developed chromatogram will be specific with selected solvent system cyclohexane:ethyl acetate (80:20). Rf value serves the better tool for standardization of the drug. Characteristic TLC/HPTLC fingerprinting of particular plant species will not only help in the identification and quality control of a particular species but also provide basic information useful for the isolation, purification, characterization, and identification of marker chemical compounds of the species. Thus, the present study will provide sufficient information about the therapeutic efficacy of the drug and also in the identification, standardization, and quality control of the medicinal plant.
Table 2: TLC profile of ethanolic extract of *D. montana* (Roxb.) leaves

| Extract                      | Color of spots                                      | Spots | R<sub>f</sub>-value       |
|------------------------------|----------------------------------------------------|-------|---------------------------|
| Solvent system cyclohexane: ethyl acetate (80:20) |                                     |       | 0.29, 0.42, 0.48, 0.62, 0.85 |
| Ethanolic                    | Green, blue, purple, violet brown, pale yellow      | 5     |                           |
| Chloroform                   | Green, blue                                        | 2     | 0.26, 0.43                |
| Ethyl acetate                | Blue, purple, violet brown, pale yellow             | 6     | 0.42, 0.54, 0.58, 0.63, 0.78 |
| Solvent system petroleum ether: benzene (40:10)  |                                     |       |                           |
| Ethanolic                    | Green, blue, purple, violet brown, pale yellow      | 9     | 0.23, 0.29, 0.38, 0.43, 0.56, 0.63, 0.78 |
| Petroleum ether              | Green, brown, purple                               | 3     | 0.43, 0.64, 0.78          |

Spray reagent: Anisaldehyde sulfuric acid, R<sub>f</sub>: Retention factor, *D. montana*: Diospyros montana, TLC: Thin-layer chromatography

Table 3: HPTLC fingerprinting of ethanolic extract of *D. montana* (Roxb.) leaves

| Track | Peak | Start R<sub>f</sub> | Start height | Maximum R<sub>f</sub> | Maximum height | Maximum % | End R<sub>f</sub> | End height | Area | Area % |
|-------|------|---------------------|--------------|------------------------|----------------|-----------|------------------|------------|------|--------|
| 1     | 1    | 0.01                | 31.3         | 0.02                   | 67.10          | 8.37      | 0.05             | 0.20       | 833.9 | 3.24   |
|       | 2    | 0.06                | 0.00         | 0.07                   | 18.10          | 2.26      | 0.08             | 5.00       | 89.8  | 0.39   |
|       | 3    | 0.1                 | 6.70         | 0.11                   | 22.40          | 2.8       | 0.12             | 5.40       | 192.7 | 0.84   |
|       | 4    | 0.18                | 4.80         | 0.20                   | 42.90          | 5.36      | 0.22             | 11.0       | 838.9 | 3.67   |
|       | 5    | 0.26                | 13.80        | 0.29                   | 87.70          | 10.94     | 0.32             | 29.8       | 2620.1 | 11.46  |
|       | 6    | 0.34                | 6.20         | 0.39                   | 256.5          | 32.03     | 0.41             | 88.60      | 5676.9 | 24.82  |
|       | 7    | 0.42                | 89.90        | 0.44                   | 121.5          | 15.17     | 0.47             | 10.0       | 3240.0 | 14.17  |
|       | 8    | 0.65                | 24.00        | 0.66                   | 36.00          | 4.49      | 0.67             | 27.30      | 404.6  | 1.77   |
|       | 9    | 0.74                | 39.30        | 0.83                   | 56.10          | 7.01      | 0.83             | 55.90      | 3858.8 | 16.87  |
|       | 10   | 0.89                | 51.10        | 0.93                   | 92.60          | 11.56     | 1.00             | 2.60       | 5115.9 | 22.37  |

Max: Maximum, R<sub>f</sub>: Retention factor, *D. montana*: Diospyros montana, HPTLC: High-performance thin-layer chromatography
extract (Fig. 4). Here, ethanolic extract showed highest (46.4 mg/g) amount of phenolics containing compounds whereas ethyl acetate extract showed slightly lower amount (41.4 mg/g) as compared to gallic acid (76.8 mg/g). These indicate a complete profile of the antioxidant activity of extracts of plants with respect to their phenols content.

Antioxidant activity

Superoxide anion radical-scavenging activity

Superoxide radical scavenging activity of D. montana (Roxb.) leaves extracts was compared with standard ascorbic acid and BHT. Ethanol extract and ethyl acetate fraction both showed potent antioxidant activity compared to BHT. The hydroxyl radical scavenging activity of ethyl acetate fraction was (IC\textsubscript{50} value - 481.50 µg/ml) and that of standard BHT was (IC\textsubscript{50} value 497.60 µg/ml) depicted (Table 5). The reduction of total oxidation products as a function of the volume of the extract added to the assay. This result implied that the potential antioxidant capabilities imparted to D. montana (Roxb.) leaves can be attributed to the presence of phenolic compounds in these species.

Nitric oxide radical scavenging activity

Ethanolic extract, petroleum ether, chloroform, and ethyl acetate fractions of D. montana (Roxb.) leaves were evaluated for antioxidant activity using in vitro models such as nitric oxide radical scavenging activity. BHT was used as standard drug. Extracts displayed a significant nitric oxide scavenging activity at all the concentrations. Ethanolic extract and ethyl acetate fraction both showed potent antioxidant activity as compared to BHT (Table 6). It was also observed that the IC\textsubscript{50} values of ethanolic (IC\textsubscript{50} 324.09 µg/mL) ethyl acetate fraction (IC\textsubscript{50} 361.11 µg/mL) and that of standard BHT (IC\textsubscript{50} 336.99 µg/mL), respectively.

Antioxidant activity in \(\beta\)-carotene/linoleic acid emulsion

In the \(\beta\)-carotene/linoleic acid emulsion antioxidant activities of all the extracts gradually increased with increasing concentration of the extracts. In this assay, all

Table 4: Total flavonoid content of D. montana (Roxb.) leaves

| Extracts          | Total flavonoid content (mg QE/100 g) |
|-------------------|----------------------------------------|
| Ethanol           | 1.83                                   |
| Ethyl acetate     | 1.48                                   |

D. montana: Diospyros montana, QE: Quercetin equivalents

![Figure 3: Standard curve quercetin](image)

![Figure 4: Total phenolic content, ETH - ethanol extract, EA - ethyl acetate extract, and GA - gallic acid](image)

Table 5: Super oxide radical scavenging activity

| Concentration of extract/standard (µg) | (% Inhibition effect BHT standard) | (% Inhibition effect ethyl acetate) | (% Inhibition effect pet-ether extract) | (% Inhibition effect chloroform extract) | (% Inhibition effect ethyl acetate extract) |
|---------------------------------------|-----------------------------------|-----------------------------------|----------------------------------------|----------------------------------------|-----------------------------------------|
| 200                                   | 30.81                             | 39.02                             | 26.72                                  | 24.58                                  | 39.17                                   |
| 400                                   | 42.58                             | 48.32                             | 38.19                                  | 32.51                                  | 45.57                                   |
| 600                                   | 56.16                             | 53.34                             | 45.02                                  | 43.56                                  | 56.00                                   |
| 800                                   | 63.81                             | 63.14                             | 50.51                                  | 55.01                                  | 61.500                                  |
| 1000                                  | 74.55                             | 71.87                             | 56.00                                  | 58.02                                  | 67.90                                   |
| IC\textsubscript{50} value            | 497.06                            | 458.38                            | 771.40                                 | 701.600                                 | 481.50                                  |

Given values are average of triplicate, i.e., n=3, Inhib. = Inhibition, BHT = Butylated hydroxytoluene, IC\textsubscript{50} = Inhibition concentration (the concentration producing 50% of maximal inhibition)

Table 6: Nitric oxide radical scavenging activity

| Concentration of extract/standard (µg) | (% Inhibition effect BHT standard) | (% Inhibition effect ethyl acetate) | (% Inhibition effect pet-ether) | (% Inhibition effect chloroform) | (% Inhibition effect ethyl acetate) |
|---------------------------------------|-----------------------------------|-----------------------------------|-------------------------------|---------------------------------|-----------------------------------|
| 200                                   | 44.38                             | 43.12                             | 31.56                         | 33.38                           | 40.13                             |
| 400                                   | 52.79                             | 55.21                             | 38.54                         | 35.44                           | 52.77                             |
| 600                                   | 63.41                             | 59.60                             | 40.43                         | 39.95                           | 56.89                             |
| 800                                   | 69.71                             | 63.22                             | 47.12                         | 47.60                           | 60.32                             |
| 1000                                  | 74.99                             | 66.73                             | 51.02                         | 55.17                           | 63.14                             |
| IC\textsubscript{50} value            | 336.99                            | 324.09                            | 951.10                        | 864.78                          | 361.11                            |

Given values are average of triplicate, i.e., n=3, Inhib. = Inhibition, BHT = Butylated hydroxytoluene, IC\textsubscript{50} = Inhibition concentration (the concentration producing 50% of maximal Inhibition)
The various antioxidant mechanisms of D. montana (Roxb.) petroleum ether showed significantly the weakest antioxidant activity while the ethyl acetate extract presented significantly the strongest activity (at all concentrations tested) in comparison to BHT. The ethyl acetate extract exhibited 83.19% antioxidant activity, respectively, at 200 µg/mL, which was comparable to that of BHA standard at 200 µg/mL (99.3%). It is highly possible that antioxidant components in the ethyl acetate extract can reduce the extent of β-carotene bleaching by neutralizing the linoleate free radical and other free radicals formed in the system. Their antioxidant powers were ranked in the order: BHT > ethyl acetate extract > ethanol extract > petroleum ether. The antioxidant capacity of different extracts showed the graded increase with the increase in concentration among which petroleum ether prove to be weakest (at all conc.) and ethyl acetate presented strongest antioxidant activity as compared to BHT.

CONCLUSION

The present work was embraced with a perspective to set down benchmarks which could be valuable to recognize the authenticity of this medicinally useful plant. Results obtained from the qualitative evaluation of HPTLC analysis of leaves can provide standard fingerprints and can be used as a reference for the identification and quality control of the drug. It appears that the two extracts from the leaves possess hydrogen donating capabilities to act as an antioxidant. Ethanolic extracts and its ethyl acetate fraction have significant antioxidant activity compared to petroleum ether, chloroform extract, and well-characterized standard antioxidant systems in vitro. The various antioxidant mechanisms of D. montana (Roxb.) extract may be attributed to its strong abilities as a scavenger of superoxide and free radicals. It revealed that the extract from the leaves possesses potent antioxidant activity presumably due to its substantial amount of flavonoids and polyphenolic content of extracts. However, the components responsible for the antioxidant activity of D. montana (Roxb.) extracts are currently unclear. Further studies can be materialized toward isolation and identification of individual phenolic compounds, and also in vivo studies are needed for better understanding the mechanism of action as an antioxidant agent.

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AUTHOR’S CONTRIBUTION

Abhijeet Puri: Being a single author, I carried out the complete experimentation, data analysis, the inscription of a manuscript, read-through, revising, and improving the standard of the manuscript. No other coauthor contributed to this work.

CONFLICTS OF INTEREST

The authors declare that he has no conflicts of interest.

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Table 7: β-carotene/linoleic acid antioxidant activity

| Conc. of extract/standard (µg) | (%) Inhibition effect BHT standard (%) Inhibition effect ethanolic extract (%) Inhibition effect petrol-ether extract (%) Inhibition effect chloroform extract (%) Inhibition effect ethyl acetate extract | Given values are average of triplicate, i.e., n = 3, Inhib.: Inhibition. BHT: Butylated hydroxytoluene, IC1000 | BHT standard | ethanolic extract | petrol-ether extract | chloroform extract | ethyl acetate extract |
|--------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------|----------------|------------------|-----------------|------------------|
| 200                           | 89.3                                                                                             | 76.5                                                                                             | 63.78    | 48.5          | 83.19            |
| 400                           | 88.74                                                                            | 91.21                                                                                           | 70.61    | 64.5          | 90.077          |
| 600                           | 92.37                                                                             | 87.87                                                                                           | 52.29    | 79.3          | 94.10           |
| 800                           | 96.42                                                                             | 93.5                                                                                           | 49.75    | 78.7          | 93.25           |
| 1000                          | 90.122                                                                            | 89.78                                                                                           | 42.12    | 88.39         | 95.5            |
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